INSTALLATION INSTRUCTIONS

TURBOCHARGER SYSTEMS:
2003 - 2005 Infiniti G35
VQ35 3.5L V6 Engine, Manual Transmission Only

P/N 15150 (No Catalytic Converter)
P/N 15151 (With Catalytic Converter)
P/N 15154 (No Cat, Fuel or ECU Upgrade)

Turbonetics, Inc. * 2255 Agate Court * Simi Valley, CA * 805-581-0333 * TurboneticsInc.com

READ THIS FIRST: Study these instructions completely before proceeding. Engine and/or turbocharger damage may occur if any component within these instructions is improperly installed. Turbonetics, Inc or any of its distributors cannot be held responsible for damages as a result of negligent or improper installation. This complete turbocharger system can be installed using common tools and automotive procedures, but installer must have a thorough knowledge of automotive engine operation and feel comfortable working on the vehicle. If in doubt, contact Turbonetics' technical support staff at 805-581-0333, between the hours of 8:00AM and 5:00PM PST, Monday through Friday.

Remove the turbocharger system from its carton and inspect for any obvious physical damage. All kit components are thoroughly inspected and carefully packaged prior to shipment from the factory. If any shipping damage is evident, contact your supplier and request that they process a claim with the shipper involved. Be sure to review the parts list on page 3 to verify that you have all necessary system components to proceed. If any components in the parts list are missing, contact Turbonetics' customer service staff.

Although this turbocharger system has been designed to use many of the factory emissions controls (P/N 15136 includes a replacement catalytic converter), it is not currently "smog" legal in California, and therefore recommended for "off road" use only. In other states, check local laws regarding aftermarket modification to emission controlled vehicles.

This turbocharger system was originally designed around factory components, therefore changing any factory components such as headers and exhaust system may not be compatible with our system.

This Turbonetics' turbocharger system is available in 3 combinations. P/N 15134 and 15136 are intended for the typical enthusiast, and include all necessary components and hardware to simply "bolt on" the turbo system and drive. Both of these systems are identical except for 1 exhaust tube (which does or doesn't contain an aftermarket catalytic converter). P/N 15138 is intended for the "tuner" enthusiast who wants the freedom to choose his own fuel components and controls, and includes all the same components and hardware as P/N 15134, except NO fuel injectors, fuel pump or ECU upgrade.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Turbonetics reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

SAFETY REQUIREMENTS: It is recommended to follow these precautions.

- Always wear safety glasses & gloves.
- Turn the ignition switch to the OFF position & disconnect the battery.
- Always use properly rated jack stands when working under the vehicle.
- Prevent unexpected vehicle movement by using wheel chocks and/or parking brake.
- Operate the vehicle only in well ventilated areas.
- Do not smoke or use flammable items near or around the vehicle's fuel system.
- Keep hands, clothing and other objects away from moving parts when engine is running.
-

SUPPLIES: It is recommended to have the following items before beginning installation.

- Infiniti / Nissan factory service manual, for your model year G35
- A large table or bench, and plenty of adjacent available workspace
- Standard selection of automotive tools, primarily metric sizes
- An assortment of "zip ties" and/or thin-gauge steel wire
- The ability to securely lift the vehicle at least a few feet off the ground
- High temp. automotive RTV sealant
- NPT thread sealant
- Replacement engine oil, oil filter, and power steering fluid
- 7/64" and 3/8" drill bits and step drill, 1/8" – 9/16" range

TORQUE RECOMMENDATION: When removing and re-installing factory fasteners, refer to the Infiniti / Nissan service manual for torque values. When installing fasteners included in this kit, refer to the following chart:

Fastener Size	Torque (Pound-Feet)	Torque (Newton-Meters)
1/4" or 6mm	10	13
5/16" or 8mm	19	25
3/8" or 10mm	33	45
NPT fittings	2-3 turns past finger tight	

TURBOCHARGER SYSTEM PARTS LIST:

QTY	P/N	DESCRIPTION	P/N 15150	P/N 15151
1	11096	Turbocharger, 60-1 / Stg.5 / Ball Bearing	X	X
1	5-347	Air to Air Intercooler, Spearco	X	X
1	10781	Wastegate, Evolution	X	X
1	10843	Blow-off Valve, Raptor	X	X
1	11129	IFC Kit – Intercooler Fan Controller	X	X
1	11097	Hardware Kit, Hoses / Clamps	X	X
1	11098	Hardware Kit, Nuts / Bolts / Fittings	X	X
1	11099	Hardware Kit, Gaskets / Misc.	X	X
1	11100	Hardware Kit, Fuel Components	X	X
1	30193	Hose, Nitrile – Close Radius 90 deg.	X	X
1	11103	ECU Return Box Kit	X	X
1	21175	Tube, Turbocharger to Intercooler	X	X
1	21176	Tube, Intercooler to MAF Sensor – 1	X	X
1	21177	Tube, Intercooler to MAF Sensor – 2	X	X
1	21178	Tube, Intercooler to MAF Sensor – 3	X	X
1	21179	Tube, MAF Sensor to Throttle Body	X	X
1	21180	Tube, Air filter to Turbocharger	X	X
1	21181	Tube, Exhaust, Crossover	X	X
1	21182	Tube, Exhaust, U-bend	X	X
1	21183	Tube, Exhaust, Y-pipe	X	X
1	21184	Tube, Exhaust, Turbine Hsg. Inlet	X	X
1	21185	Tube, Exhaust, Downpipe – 1	X	X
1	21186	Tube, Exhaust, Downpipe – 2	X	X
1	21200	Tube, Exhaust, Wastegate Discharge	X	X
1	21204	Tube, Exhaust, Downpipe – 3 (No Cat.)	X	
1	21201	Tube, Exhaust, Downpipe – 3 (With Cat.)		X
1	21280	Tube Assembly, Replacement A/C line	X	X
1	30223	Heat Shield, Tangential T4 housing	X	X
1	21205	Support Bracket, Downpipe - 3	X	X
1	31080	Air Filter, AEM Dry-Flow, 3.0" Inlet	X	X
1	60132	Install Instructions	X	X

QTY	P/N	DESCRIPTION

QTY	P/N	DESCRIPTION

HARDWARE KIT# 11097 (HOSES / CLAMPS) PARTS LIST:

3 FT	10721	Oil Supply Hose, -3 Fittings
3	30162-4	Silicone Hose Coupling, 3.0”
2	30172-4	Silicone Hose Coupling, 2.5”
2	30380-4	Silicone Hump Connect, 2.5”
1	30444-4	Silicone 45’ Elbow, 2.5”
6 FT	30542-BK	Silicone Vacuum Hose, 5/32”

10	30275-250	T-bolt Band Clamp, 2.5”
6	30275-300	T-bolt Band Clamp, 3.0”
3	31073	V-band Clamp
2	30232	V-band Clamp
4	30817	Hose Clamp, 5/8”
7 FT	30827	Hose, Oil Drain, 5/8”

HARDWARE KIT# 11098 (NUTS / BOLTS / FITTINGS) PARTS LIST:

1	30133	Fitting, 3/8” NPT x 5/8” Hose, Straight
2	30306	Fitting, 1/8” NPT x 5/32” Hose, Straight
1	30307	Fitting, 1/8” NPT x 5/32” Hose, Elbow
1	30544	Fitting, 1/8” NPT x -3, Straight
1	30551	Fitting, 1/8” NPT x -3, Elbow
1	30562	Fitting, 1/8” NPT, M x M x F
1	30816	Fitting, 1/2" NPT x 5/8” Hose,45’
2	30566	Hex Bolt, 1/4 -20 x 1/2" Lg.
4	30567	Hex Bolt, 1/4 -20 x 3/4" Lg.
2	30570	Hex Bolt, 5/16 -18 x 1.0" Lg.
2	30739	Hex Bolt, M8-1.25 x 25mm Lg.
2	30700	Hex Bolt, M8-1.25 x 20mm Lg.
2	30248	Hex Bolt, 1/4-20 x 5/8” Lg.

6	31003	Hex Bolt, M10-1.25 x 40mm Lg.
4	31005	Hex Bolt, M10-1.50 x 20mm Lg.
6	30589	Flat Washer, 5/16” or M8
6	30804	Flat Washer, M10
4	30591	Flat Washer, 1/4" or M6
10	30593	Lock Washer, 5/16” or M8
14	30805	Lock Washer, M10
6	30596	Lock Washer, 1/4” or M6
4	30578	Hex Nut, 1/4-20
6	30653	Hex Nut, M8
10	30803	Hex Nut, M10-1.25
3	30806	Stud, M10-1.25 x 42mm Lg.
4	30860	Stud, M8-1.25 x 30mm Lg.
3	30862	Hex Plug for O2 Bung, M18-1.5
1	31004	Socket Hd. Bolt, M10-1.25 x 50mm Lg.

HARDWARE KIT# 11099 (GASKETS / MISC.) PARTS LIST:

2	20142	Gasket, W’gate Disch.,Evolution
1	20259	Flange, Oil Drain, 1/2” NPT
1	20732P	Disch. Horn, Raptor
1	21202	Support Bracket, Turbo
2	21203	Mounting Bracket, Intercooler
1	30141	Gasket, Oil Drain, T3/T4
1	30263	Gasket, Turbine Inlet, T3

1	30468	O-ring, Flange, Raptor
1	30808	Tap, 1/8” NPT
1	30809	Tap, 3/8” NPT
1	31006	Loop Strap, 1.0” dia., 1/4" hole
7.5 FT	31007	Heat Shield Wrap, 1.5” Wide

HARDWARE KIT# 11100 (FUEL COMP’TS) PARTS LIST:

6	21210	Spacer, Fuel Injector
6	21211	Adapter, Fuel Injector

6	31001	Fuel Injector, Upgrade
1	31002	Fuel Pump, Upgrade

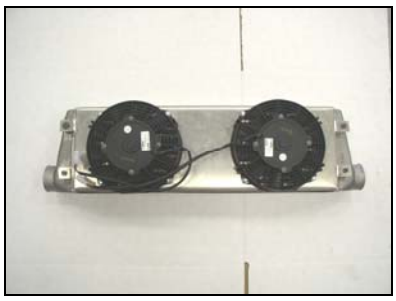
ECU RETURN BOX KIT# 11103 PARTS LIST:

1	31009	ECU Return Box
1	31011	Pair of Foam Inserts
1	31038	Fedex Return Label

1	31039	Serial No. Decal, White
1	31043	Electronic Mat’l Decal, Red

P/N 11096

P/N 5-47



P/N 10781

P/N 10843

P/N 11097

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P/N 21200

P/N 21204

P/N 21201

P/N 21280

P/N 30223

P/N 21205

P/N 30193

P/N 31080

P/N 11129

P/N 11103

P/N 60132

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PREREQUISITE STEPS: Before getting your hands dirty while under the hood, there are 2 prerequisite steps. See the following 2 sections for detailed instructions regarding A/C Tube Replacement and ECU Removal & Shipping.

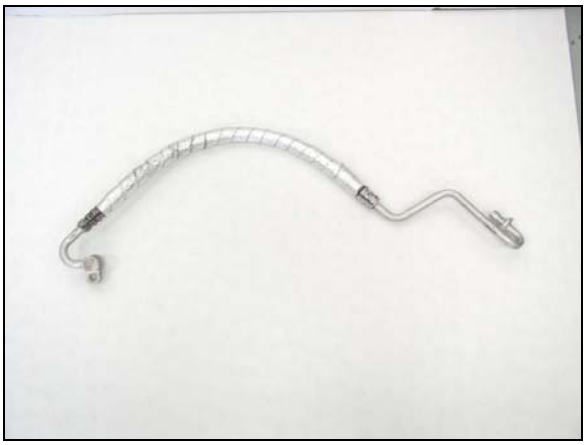
A/C TUBE REPLACEMENT: The first prerequisite step is to have a replacement air conditioning tube assembly (included in the kit) installed by a professional A/C technician. This is necessary because the turbocharger is located very close to this A/C tube in its factory location, so a replacement "shielded" tube assembly is supplied to move it away from the hot turbocharger. **HAZARDOUS:** Do not attempt to perform this step without proper training or equipment. Take your car to a local auto repair shop that is capable of discharging and recharging the A/C system on your car, and have them perform the following 8 steps. Don't forget to bring the replacement part, P/N 21280 (FIGURE 1).

1. Turn the ignition switch to the OFF position & disconnect the battery.

2. Using factory recommended procedures, evacuate (discharge) the A/C system.

3. Remove factory air filter box assembly to provide easy access to the A/C tube being replaced.

FIGURE 1



4. Remove factory A/C tube, as shown in FIGURES 3 and 4. Tube routes from the A/C compressor (front, driver's side of engine) on one end, towards the front-mount heat exchanger on the other end.

FIGURE 3

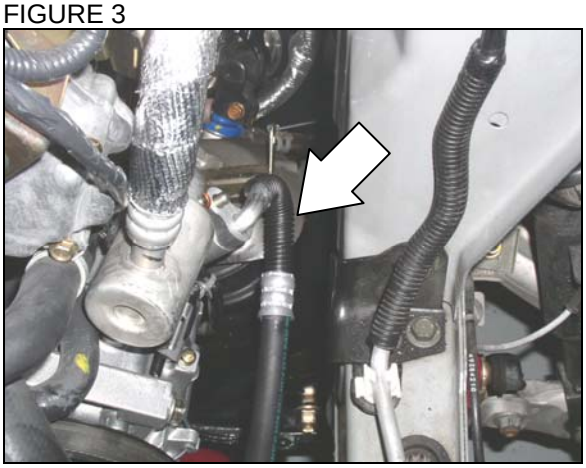
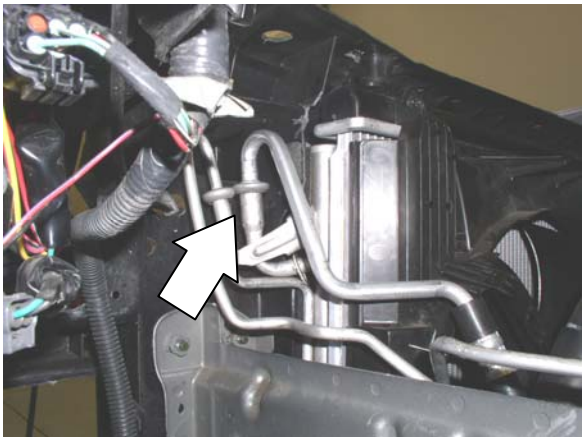
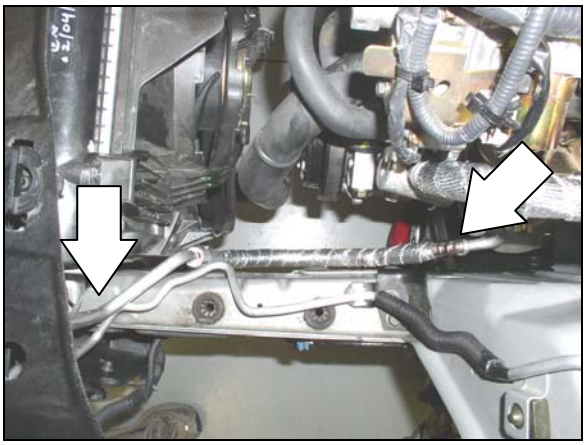


FIGURE 4



5. Install replacement A/C tube assembly (P/N 21213) in same location. See FIGURE 5.

FIGURE 5



6. Using factory recommended procedures, re-fill (charge) the A/C system. Check for leaks.

7. Re-install the factory air filter box assembly, and reconnect the battery.

8. Start the car, turn on the A/C system & re-check for leaks.

ECU REMOVAL & SHIPPING: Once the A/C tube is replaced and working properly, the 2nd prerequisite step is to remove the ECU (Engine Control Unit) from the car, and ship it to Turbonetics to load the new engine management program, tuned specifically for your car with this turbo setup.

NOTE 1: You'll want to perform this step just before you are ready to start working on the car. When you receive your ECU back from Turbonetics, it will be re-programmed for a turbocharged engine and therefore will no longer work properly with your naturally aspirated "stock" engine. The included ECU return box kit (P/N 11103) includes a pre-paid Fedex shipping label for express shipping, so you can expect to receive your ECU back in 2-3 days.

NOTE 2: If, in the future, you choose to remove the turbocharger system (for example, before selling the car), it is possible to re-program your ECU back to naturally aspirated "stock" specs. At that time, contact Turbonetics' customer service staff for details.

9. Turn the ignition switch to the OFF position & disconnect the battery.

10. Remove the ECU, located behind the passenger-side lower dashboard. Refer to the Nissan / Infiniti service manual for more detailed instructions, but listed below is a general guideline on how to do this:
    - Remove the bottom black plastic panel that is underneath the glove box by slowly pulling it downwards and pulling back straight at you (SEE FIGURE 6).

FIGURE 6

FIGURE 7

- Remove the passenger side kick panel by removing the plastic nut on the firewall. The nut should be lose enough to be removed with your fingers (SEE FIGURE 7).
- To remove the glove box, start by unscrewing two Phillips screws on the bottom of the glove box (SEE FIGURE 8)

FIGURE 8

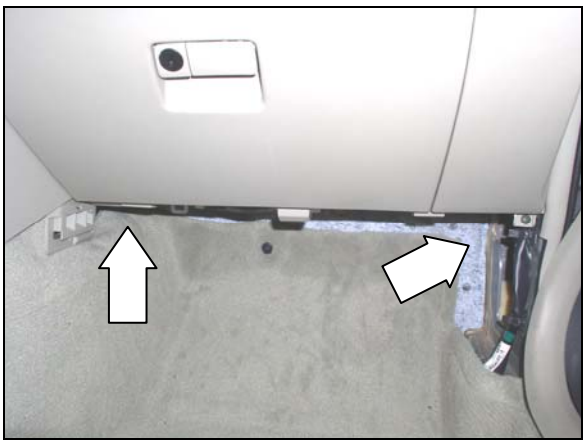
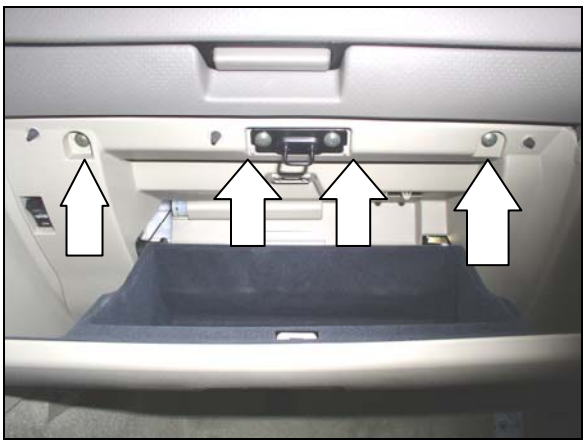


FIGURE 9



- Open the glove box, and unscrew the four Phillips screws on the top (SEE FIGURE 9)
- Upon removing the last screw on the top, support the glove box from the bottom with one hand while unscrewing the last screw with the other
- Carefully set the glove box to the floorboard of the vehicle

FIGURE 10

- Locate the ECU and remove the electrical connectors & fasteners holding it in place.
- Unplug the ECU by pulling back on lever on the connector and slowly pull down on the connector (SEE FIGURE 11 & 12).

FIGURE 11

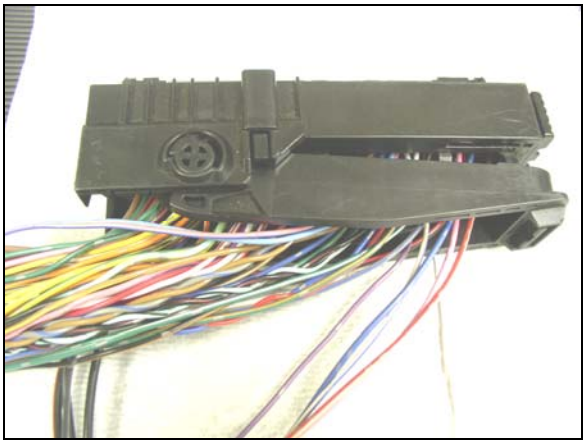
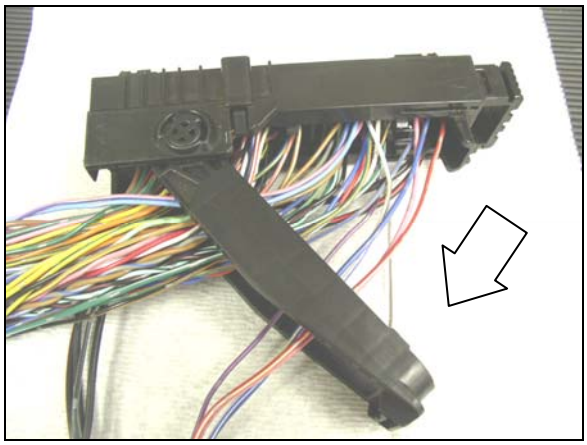


FIGURE 12



- Remove the 10mm nut on the top and bottom of the ECU bracket (SEE FIGURE 13 & 14)

FIGURE 13

FIGURE 14

11. Once removed from the car, attach the Serial No. decal (P/N 31039) to the ECU in the location pointed out in FIGURE 15, and fill out the information on the label with a permanent black pen or thin-tip marker. **NOTE: All ECU's received with incomplete or illegible decals will be returned or discarded, so please print clearly and completely!**

    - First & Last Name (Who are you?)
    - Mailing Address (Where should we ship your ECU back to you?)
    - Phone Number (How can we contact you, if any problems arise?)
    - Model Year / Manufacturer Name / Model Name (For example: 2003 Nissan 350Z Touring)
    - Manufacture date of car (Located on driver side door jam; See FIGURE 16)
    - Transmission Type (Manual or Automatic)
    - V.I.N. number (Also located on driver side door jam; See FIGURE 16)

FIGURE 15

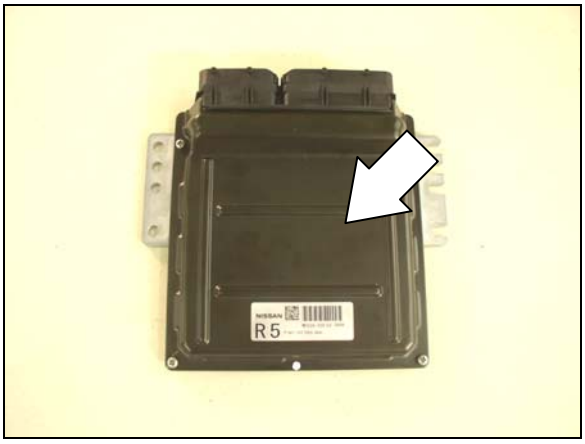


FIGURE 16

MFD.BY NISSAN MOTOR CO.,LTD
DATE 10/03
GVWR/PNBV 3815 LBS.
GAWR/PNBE FR. 1906 LBS. RR.
THIS VEHICLE CONFORMS TO ALL APP FEDERAL
MOTOR VEHICLE SAFETY,BUMPER,AND THEFT PREVENTION
STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE
SHOWN ABOVE.
JN1AZ34D
PASSENGER CAR/VOITURE DE TOURISME

12. Package your ECU in the return box (P/N 31009), using the supplied foam packaging inserts (P/N 31011). Fill in your address on the Fedex return label (P/N 31038), and apply it to the outside of the box. Seal the box closed with the supplied Electronic Mat'l decal (P/N 31043).

13. Logon to www.Fedex.com or www.Kinkos.com to find the nearest Fedex package drop-off location, and ship your ECU return box to Turbonetics.

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TIME TO GET YOUR HANDS DIRTY: With the prerequisite steps done, and the car parked for a few days (without an ECU), its time to start working under the hood. The steps from this point forward will progress smoother if you are prepared with the supplies listed on page 2, and although not necessary, the ability to lift the vehicle more than a few feet (i.e. a hydraulic lift) will make installation a lot easier. **NOTE:** The following steps dictating removal of factory parts are purposely generic; refer to the Nissan factory service manual for more detailed instructions and torque specs for all fasteners.

14. Remove the factory fuel pump assembly.

A. Remove the lower potion of the rear seat by using both hands and gently lifting up on the front part of the seat one side at a time. (SEE FIGURE 17).
B. Remove metal access cover by unscrewing the four Phillips screw clockwise and temporarily push off to the side (SEE FIGURE 18).

FIGURE 17

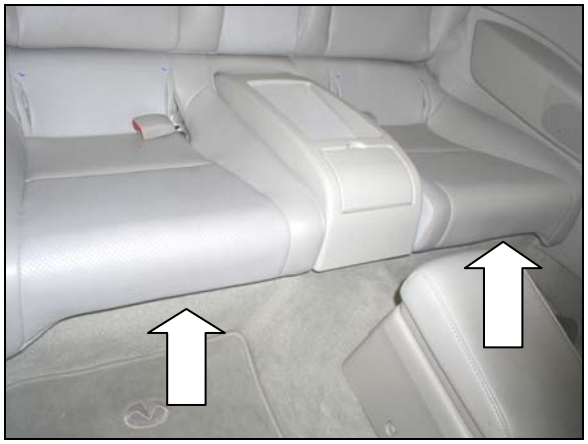
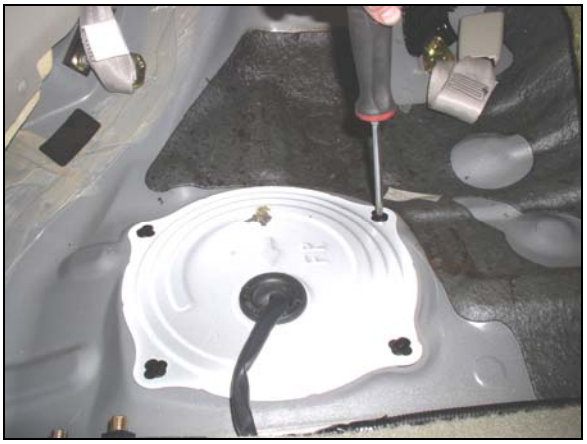


FIGURE 18



C. Remove 6 hex bolts, disconnect the electrical connection

CAUTION: **Fuel will squirt out during the removing process of the fuel hose. Make sure you have shop rag handy to cover the fuel hose prior to removal of the hose from the barb fitting.**

NOTE: Now would be a good time to extinguish your cigarette & remove any other flammable items from the area.
D. Remove the fuel connection from the top of the pump assembly by depressing both clip on the hose connection simultaneously and pull back slowly (SEE FIGURE 19 & 20).
E. Carefully pull out the fuel pump assembly (SEE FIGURE 21), and cover the exposed gas tank.

FIGURE 19

FIGURE 20

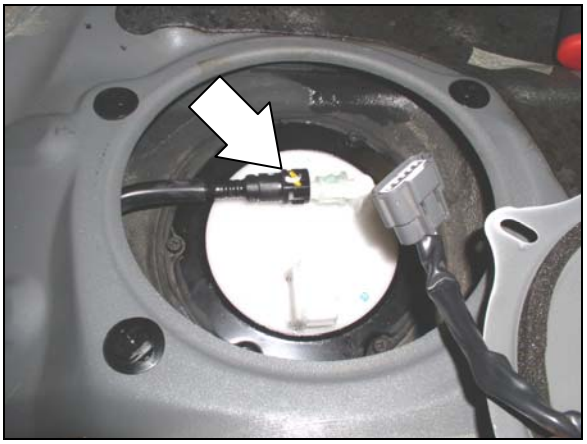
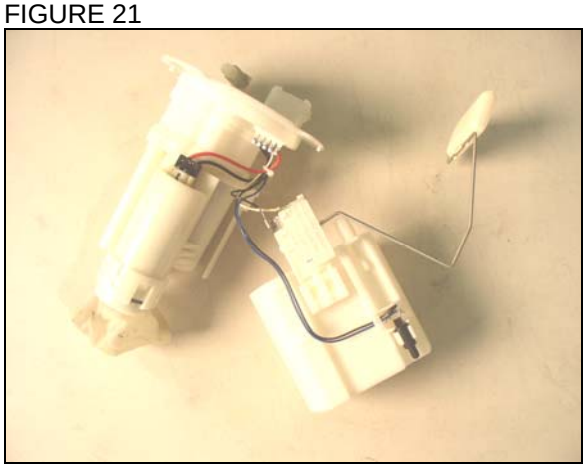


FIGURE 21



15. Sit down at a large open table, and prepare to disassemble the fuel pump assembly, per the following steps: (You will need a small flathead screwdriver, needle nose pliers, 7/64 and 3/8" drill bits and metal / wire cutters)

    A. Release the plastic clip that holds the 2 halves of the spring-loaded assembly together. Be careful not to stress or break any of the electrical wires. Set aside the coil springs. Unclip and release the electrical connector.
    B. Remove the plastic retainer clip (pointed out in FIGURE 22), black rubber damper, and fuel pump from the top half of the pump assembly.

FIGURE 22

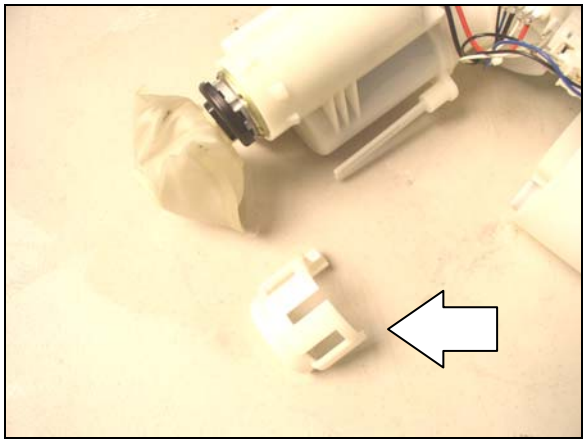


FIGURE 23

C. Remove the filter bag by releasing the metal retaining ring from the bottom of the fuel pump (pointed out in FIGURE 24).
D. Break off the small plastic tabs on the topside of the new fuel pump (P/N 31002) as shown in FIGURE 25. This is necessary because the new fuel pump is slightly taller than the factory pump, and these tabs keep it from installing properly.

FIGURE 24

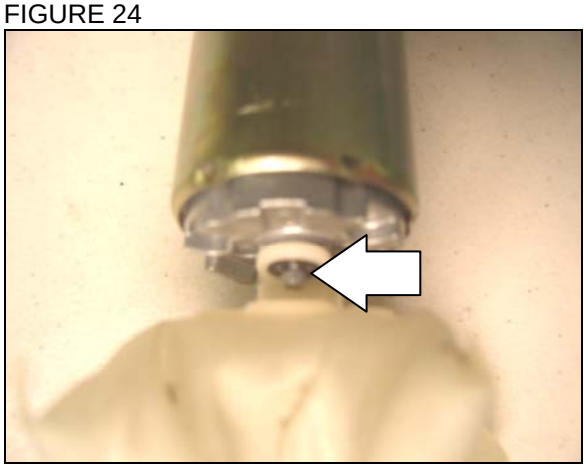


FIGURE 25

E. Install the filter bag and metal retaining ring on the new fuel pump in the same location.
F. Remove the rubber seal (pointed out in FIGURE 26) from the factory pump and install on the new pump in the same location.
G. Install the new pump into the fuel pump assembly by reversing the previous few steps.
H. Remove the factory fuel pressure regulator by removing the plastic retainer clip pointed out in FIGURE 27, and prying the regulator out with a small flathead screwdriver.
I. Carefully hold the regulator in a bench vice (or similar) and drill out the bottom orifice using a 7/64" drill bit, only until the drill breaks through the first thickness of sheetmetal (about 1/16" deep) SEE FIGURE 28. This step is necessary because the orifice size restricts the flow capacity of the upgraded fuel pump. Deburr the hole, and thoroughly clean out any remaining metal chips. **NOTE:** Take special care during this step, as this regulator is not available (as a replacement part) from your local Nissan dealership. If you destroy this part, the dealership will only sell you the whole pump assembly!

FIGURE 26

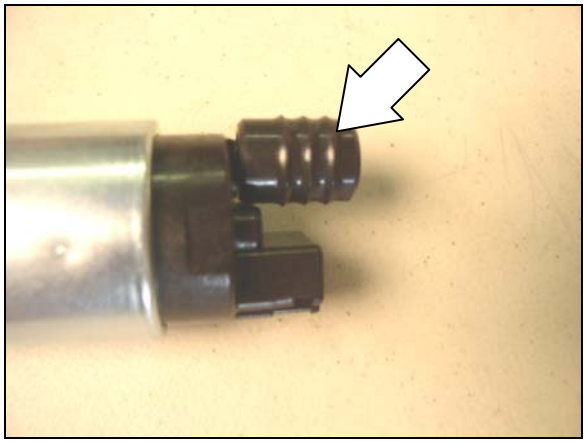
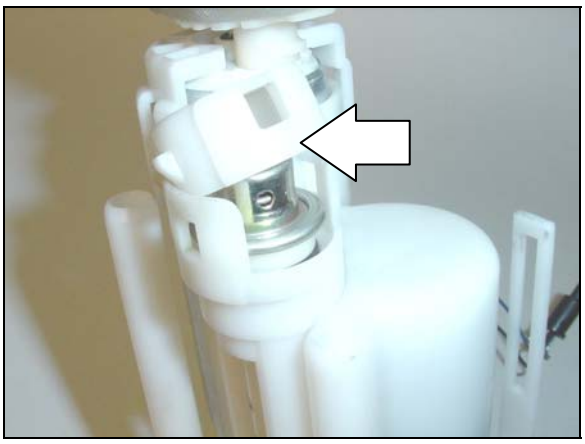


FIGURE 27



J. Remove & discard the yellow plastic fuel nozzle pointed out in FIGURE 29. Again, this step is necessary because the orifice size in this nozzle restricts the flow capacity of the upgraded fuel pump.

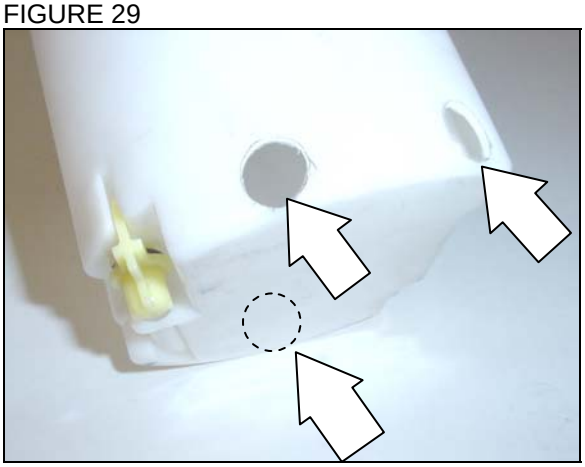
K. Carefully hold the bottom half of the white plastic fuel pump housing in a bench vice (or similar) and drill (3) 3/8" diameter holes in the side of the housing, as shown in FIGURE 29. Location is not critical, as long as the holes are near the bottom edge of the housing.

Note: It important the holes are drilled as close to the bottom as possible to allow fuel to reach the pump at all times.

L. Re-assemble the fuel pump assembly by reversing the previous steps.

FIGURE 28

FIGURE 29



16. Re-install the factory fuel pump assembly into the car, by reversing step 14.
17. Remove the strut tower brace.
18. Remove factory air filter box assembly and intake tube.
19. Remove plastic intake cover (with the Infiniti logo).
20. Remove top half of upper intake plenum (FIGURE 30).

21. Remove bottom half of upper intake plenum (FIGURE 31). **NOTE:** Once complete, plug the 6 intake runner holes with a shop rag, so that loose nut & bolts don't fall into the engine… You don't want to have to take the engine apart to retrieve lost parts!

FIGURE 30

FIGURE 31

22. Remove electrical connectors on all 6 fuel injectors, and push aside.

23. Remove the bolts holding down the fuel rail.

24. Pull up on each side of the fuel rail to pull the injectors out of the lower intake plenum (SEE FIGURE 32).

25. Remove the metal retainer clips holding the fuel injectors to the fuel rail (pointed out in FIGURE 32), and pull the injectors out of the fuel rail. **NOTE:** There will be some residual fuel in the rail, so be prepared to get wet.

FIGURE 32

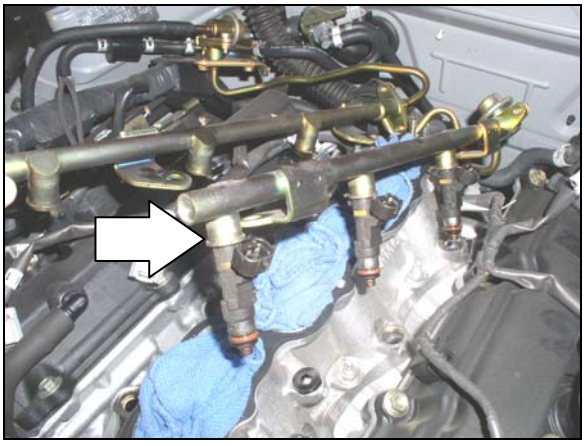


FIGURE 33

26. Sit down at a large open table, layout the 6 factory injectors and the 6 new injectors (P/N 31001) next to each other, and perform the following:

    A. Remove the o-ring seals from the bottom of the factory injectors, and slide them onto the bottom of the new injectors.
    B. Remove the o-ring seals and fuel-rail seals from the top of the new injectors.

C. Install the injector adapters (Round aluminum part w/ 2 diameters; P/N 21211) onto the top of the new injectors with the larger diameter facing down towards the body of the injector (pointed out in FIGURE 33).
D. Remove the o-ring seals from the top of the factory injectors, and slide them onto the top of the new injectors, over the adapters. The finished injectors should look like the one pointed out in FIGURE 33.

27. With all o-ring seals transferred to the new injectors, you're almost ready to install the new injectors back into the car. Install the round injector spacers (P/N 21210) into the injector holes in the lower intake plenum, so that the new injectors will sit on top of them (pointed out in FIGURE 34).

28. Carefully install the new injectors into the fuel rail, facing the same direction as the factory injectors. You will not re-use the factory metal retainer clips.

FIGURE 34

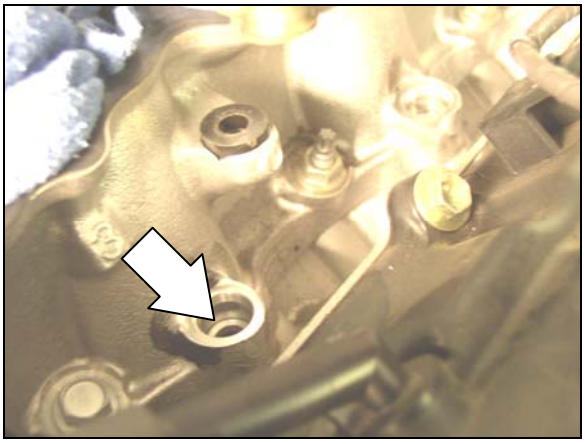
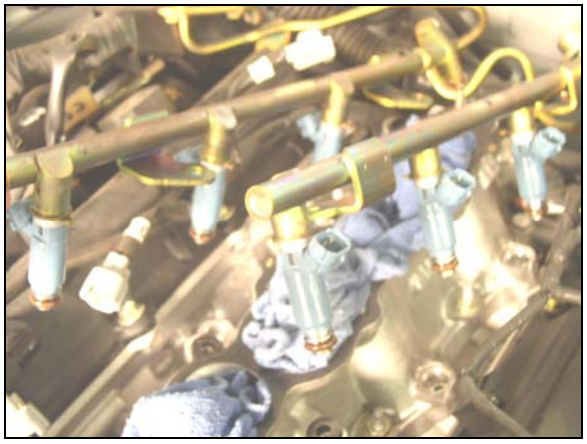


FIGURE 35



29. Re-install and bolt down both fuel rails, taking care while pressing each injector down into the lower intake plenum, to make sure each injector is properly seated on the injector spacers. Re-connect the electrical connectors to the injectors.

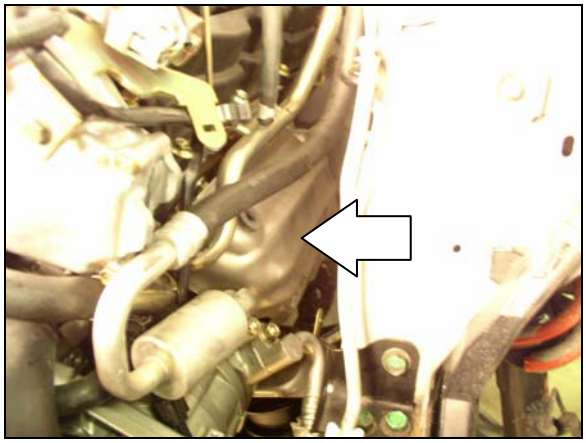
30. Remove the factory valve cover breather hose (pointed out in FIGURE 36).

31. Cut a length of 5/8" I.D. rubber hose (P/N 30827) to 5-1/2 feet. Install this hose in place of the factory hose removed in the previous step, re-using factory hose clamps on both ends. Temporarily route the hose towards the front drivers side of the car until later in the instructions.

32. Remove the driver's side exhaust manifold heat shield (pointed out in FIGURE 37). This is easier to accomplish from the topside of the engine.

FIGURE 36

FIGURE 37



33. Re-install both halves of the upper intake plenum, as well as any removed hoses, clamps or electrical connectors, reversing steps 20 & 21. Don't re-install the plastic intake cover or strut tower brace at this time.

34. Lift the front half of the car, and take all necessary safety precautions to secure the vehicle.

35. Remove the plastic splashguard from under the front bumper cover, the plastic inner fenders (in front of the wheels), the front bumper cover, styrofoam bumper pad, aluminum front bumper, and any remaining plastic fascia pieces (SEE FIGURES 38-40). Although not necessary, it is convenient to remove the front wheels.

FIGURE 38

FIGURE 39

36. Relocate the power steering cooler to the passenger side inner fender well, per the following steps:

    A. Remove power steering cooler complete with mounting brackets from its mounting position, and disconnect the rubber hose connection (pointed out in FIGURE 39). **NOTE:** Be prepared with a drain pan to catch the used power steering fluid.

FIGURE 40

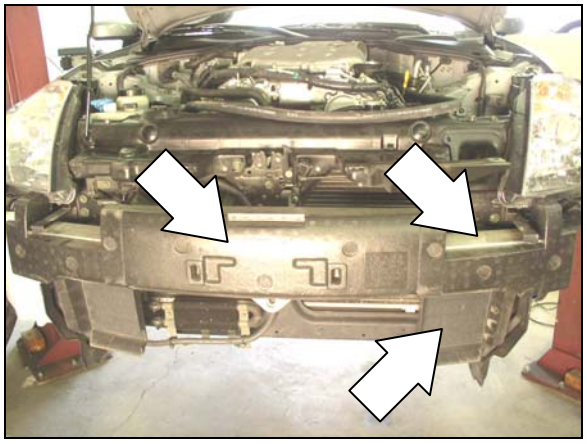
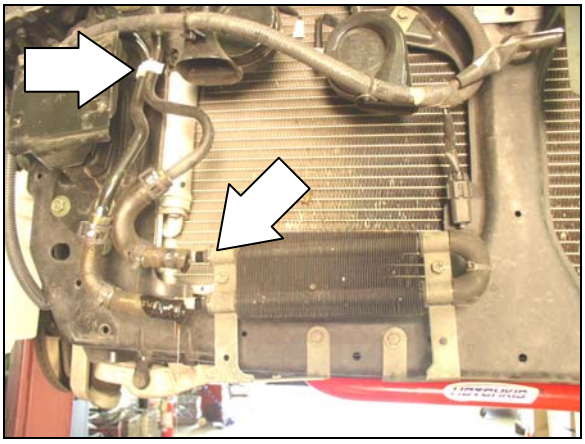


FIGURE 41



B. Remove all metal tubing and rubber hoses, all the way back to the hose connection under the power steering fluid reservoir, in the passenger side inner fender well (circled in FIGURE 42).

C. Remove both mounting brackets from the cooler, and re-mount the “left” bracket (pointed out in FIGURE 41) to the “right” side of the cooler, rotated 180 degrees from its original orientation. Look closely at FIGURE 44 to see the orientation of the bracket (pointed out by the arrows).

D. Mount the cooler (with rotated bracket) inside the passenger side fender well (as shown in FIGURE 43 & 44) re-using the factory mounting hardware removed in step A. Re-use one of the factory tapped holes to fasten the bracket to the fender well sheet metal.

E. Re-connect the rubber hoses (circled in FIGURE 42) to the cooler, using factory hose clamps. **NOTE:** It may be necessary to cut an inch or two off the length of one of the hoses; use best judgment.

FIGURE 42

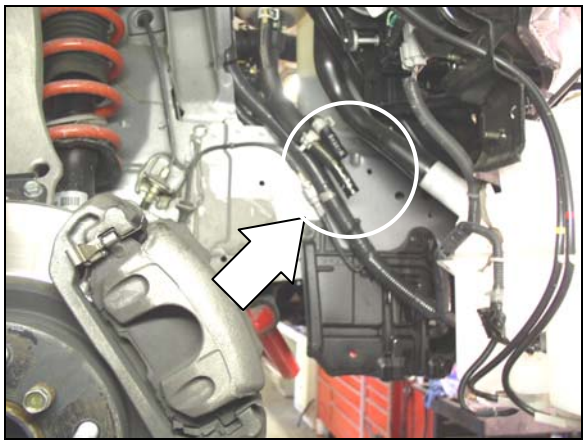


FIGURE 43

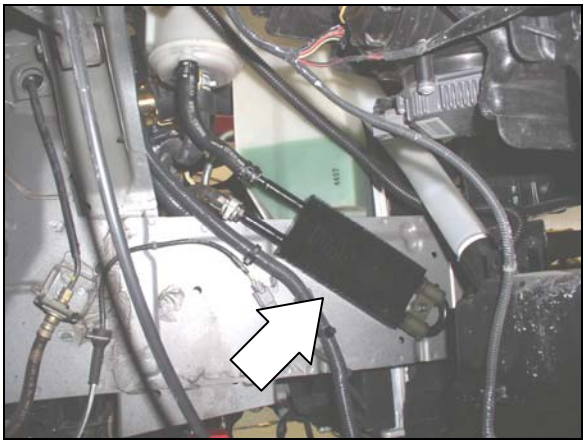


FIGURE 44

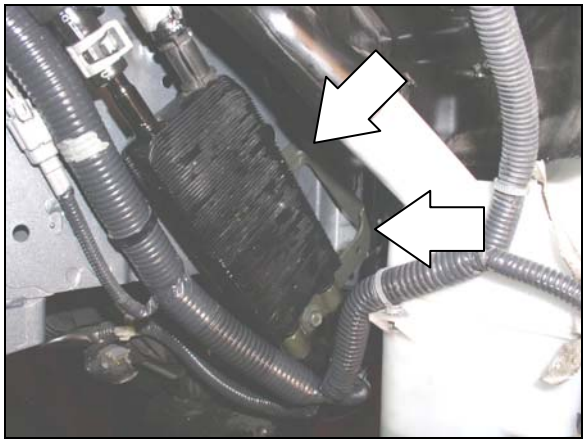
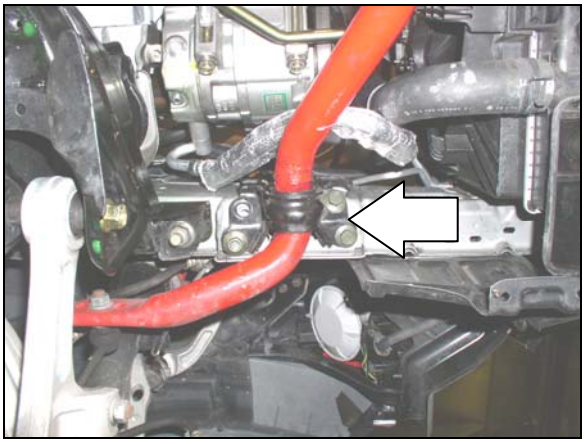


FIGURE 45



37. Remove front sway bar mounting brackets (shown in FIGURE 45) connected to the frame rail, so that the sway bar dangles loosely under the car. This step is optional, but makes the next few steps easier.

38. Drain the engine oil, and remove the oil pan.

39. Using a center punch, mark and score the location of the oil drain. Hole should be centrally located between the cast ribs of the engine block as shown in FIGURE 46 & 47.

40. Using a step drill or 1/8" drill bit, drill a pilot hole into the engine block. Increase drill bit sizes in small increments up to 9/16" hole. **NOTE:** Be careful not to push too hard when drilling, so as to avoid hitting any internal engine components when the drill bit breaks thru the casting (use of a step drill will help prevent this from happening).

41. Carefully thread the hole using the supplied 3/8" NPT tap. The tap only needs to go into the casting far enough to create full threads (approx. 3/8"), no further. **NOTE:** It is recommended to hand turn the tap, to avoid cross threading. This is a critical process… you don't want to cross thread the engine block!

FIGURE 46

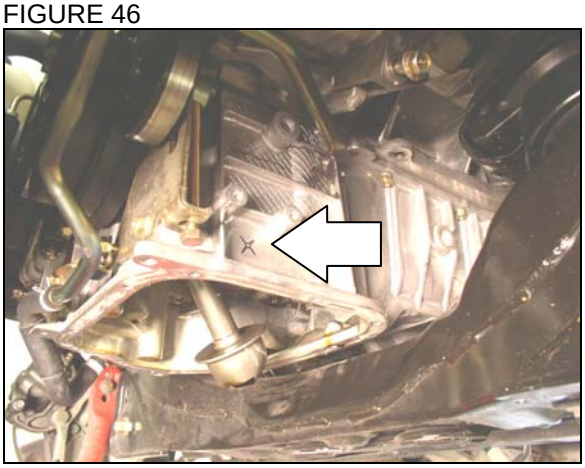
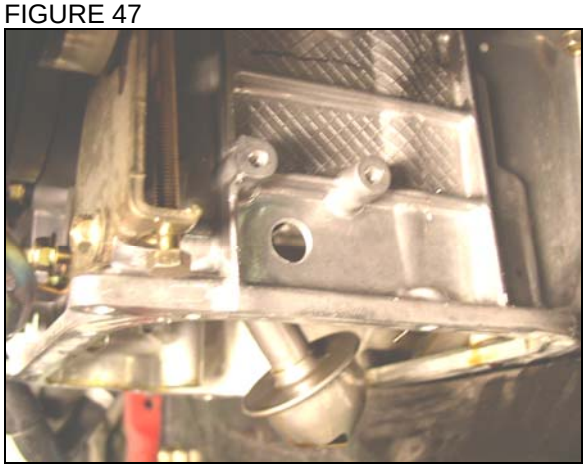


FIGURE 47



42. Deburr hole and thoroughly clean out any metal chips from inside of engine block. Install the 3/8" NPT x 5/8" hose barb fitting (P/N 30133), using NPT thread sealant.

43. Scrape off the excess factory sealant. Apply a new bead of high temp. RTV sealant to the oil pan sealing surface, and re-install the oil pan.

44. Remove the factory exhaust system (SEE FIGURE 46) from the 3-bolt manifold-to-CAT flange back to the 2-bolt flange (just before the first muffler).

45. Cut a length of heat shield wrap (P/N 31007) to 5.0 feet. Wrap P/N 21184 (Exh. Tube Ass'y, Turb. Housing Inlet) as seen in FIGURE 49. The heat wrap is adhesive backed, so it should stay in place, but as an added measure you may want to secure the end with a zip tie or steel wire.

FIGURE 48

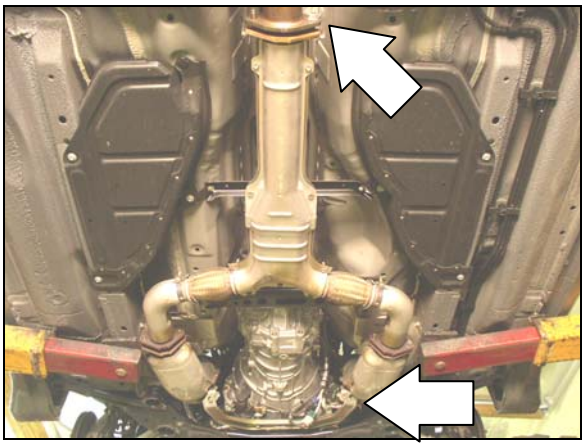


FIGURE 49

NOTE: During the next few steps, only loosely secure the new exhaust tubes in place. Once all exhaust tubes are loosely installed, go thru and tighten all the hardware & clamps.

46. Loosen the left factory hex bolt and remove the right hex bolt holding the A/C compressor in place (pointed out in FIGURE 50). Install P/N 21184 (Exh. Tube Ass'y, Turb. Housing Inlet) tube into position as shown in FIGURE 51, using the A/C bolts to loosely secure it in place.

FIGURE 50

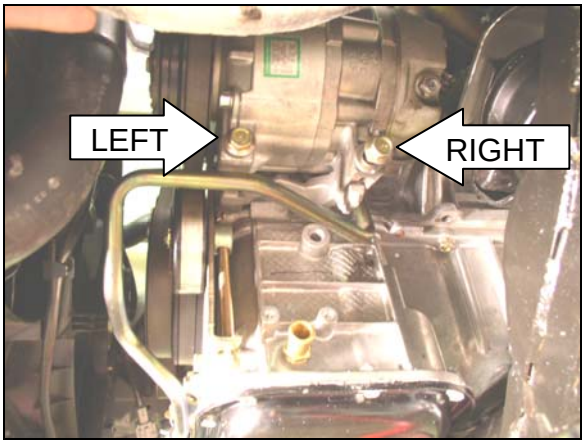
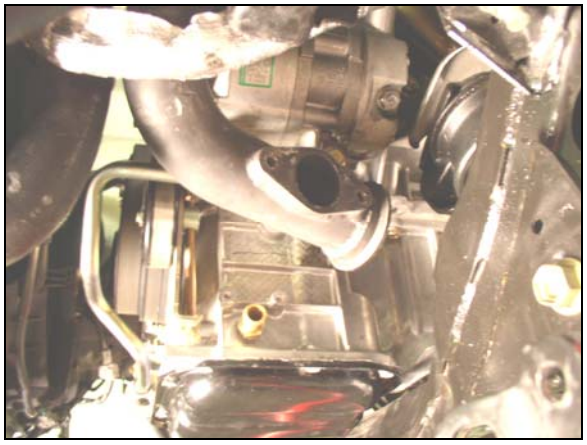
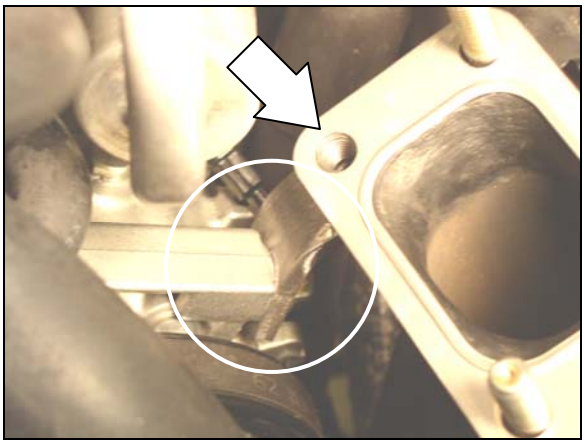


FIGURE 51



47. Either before or after loosely installing the "Turb. Housing Inlet" tube, install the "Turbo Support Bracket" (P/N 21202) circled in FIGURE 52, by loosening another of the A/C compressor bolts (on the driver's side top), and sliding the slotted end of the bracket under the loosened A/C bolt. The end of the bracket with the hole should line up with one of the holes in the turbocharger inlet flange (SEE FIGURE 52).

FIGURE 52



48. Install P/N 21183 (Exh. Tube Ass'y, Y-Pipe) into position shown in FIGURE 53, loosely securing it to the previous tube with v-band clamp P/N 31073.

49. Remove factory O2 sensor near the 3-bolt flange on the driver's side exhaust manifold, and install the O2 sensor plug (P/N 30862) in its place. The (2) factory O2 sensors can be disconnected and set aside for now. They will be re-installed later in the instructions.

50. Install P/N 21182 (Exh. Tube Ass'y, U-bend) into position shown in FIGURE 54, loosely securing it to the previous tube with v-band clamp P/N 31073. Attach & tighten the other end of the tube to the exhaust manifold, re-using one of the factory studs & nuts, and (2) M10 x 40mm hex bolts, lockwashers & nuts (Part Hardware Kit# 11098). Attach & tighten the O2 sensor (removed in the previous step) into the boss in this "U-bend" tube, circled in FIGURE 54. Recommend using anti-seize lubricant on this connection.

FIGURE 53

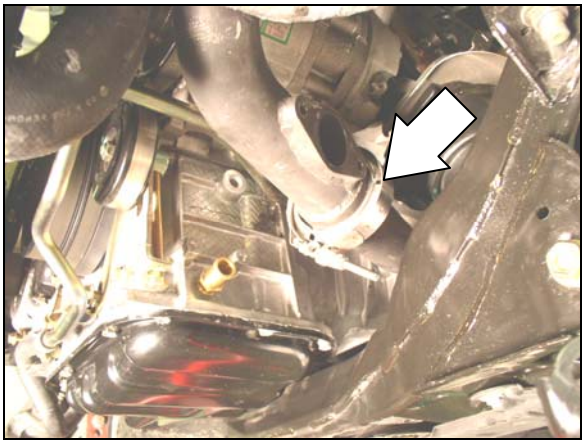
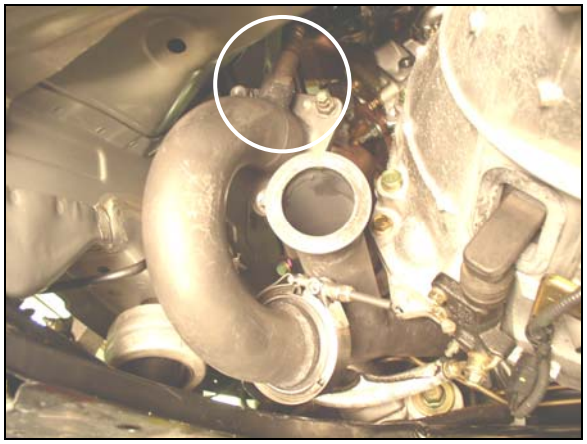


FIGURE 54



51. Install P/N 21186 (Exh. Tube Ass'y, Downpipe 2) into position shown in FIGURE 55, loosely holding it in position with steel wire, not fastened to anything. This is done now, because it is more difficult to install later in the instructions.

52. Install P/N 21181 (Exh. Tube Ass'y, Crossover) into position shown in FIGURE 56, loosely securing it to the "Y-pipe" tube with v-band clamp P/N 31073. Attach & tighten the other end of the tube to the exhaust

manifold, re-using one of the factory studs & nuts, and (2) M10 x 40mm hex bolts, lockwashers & nuts (P/Ns 31003, 30805, 30803).

FIGURE 55

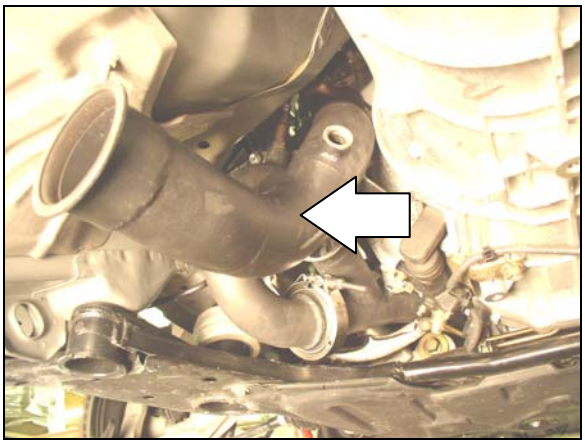
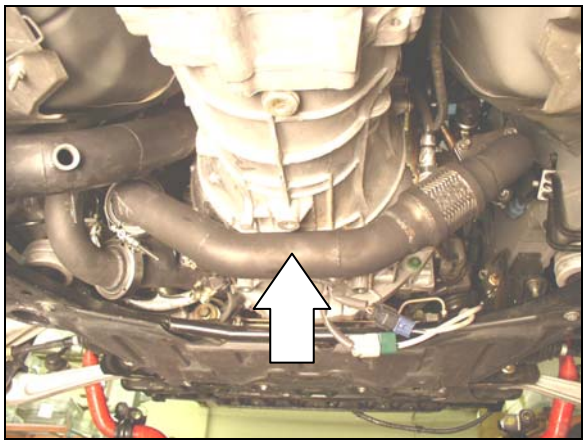


FIGURE 56



53. Lower the front half of the car.

54. In order to provide clearance for the turbocharger, it is necessary to bend 2 of the aluminum A/C tubes out of the way. Bend the silver-colored tubing (pointed out in FIGURE 57) and light-yellow-colored tubing (behind it & closer to engine) towards the engine as far as possible, as seen in the picture.

55. Remove dipstick and dipstick guide bracket (pointed out in FIGURE 58).

FIGURE 57

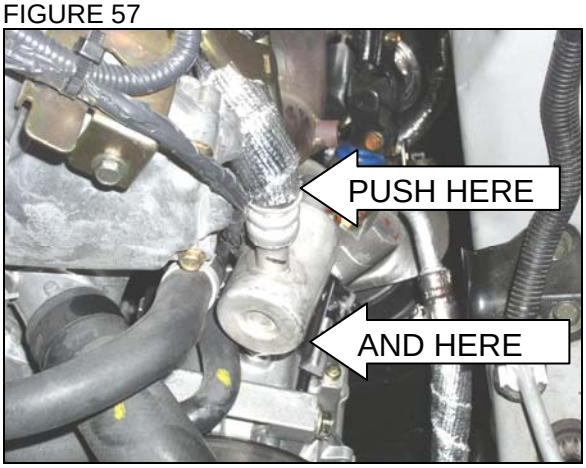
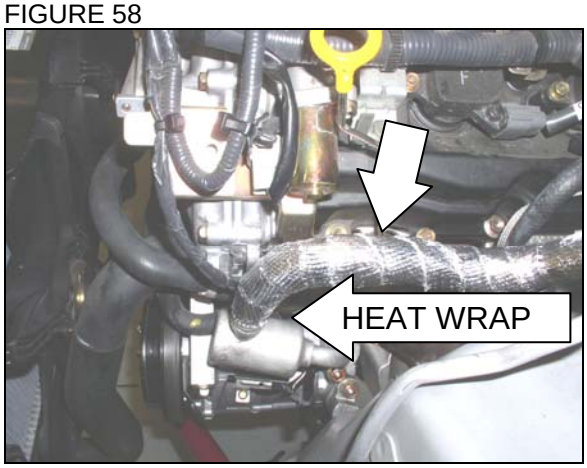


FIGURE 58

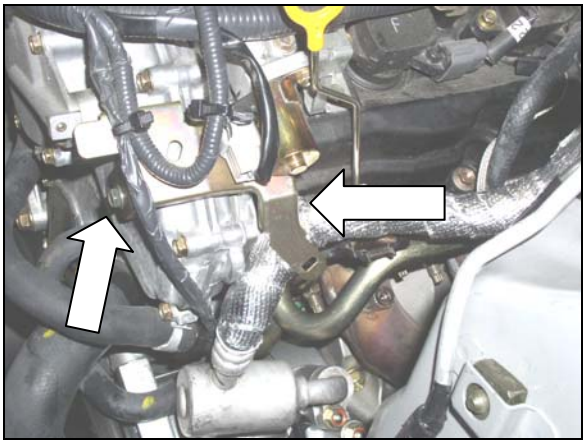


56. In order to protect the A/C line from burning, it is **critical** to wrap the A/C hose pointed out in FIGURE 58 with heat shield wrap (P/N 31007) as shown in FIGURE 60. If you have extra heat wrap, you may want to double-wrap this hose. Secure the open end with a zip tie or steel wire.

57. Install the loop strap (P/N 31006) around the A/C hose from the previous step, and secure it in the same place as the dipstick guide bracket, re-using the factory hex bolt. All this, to keep these parts shielded from the turbocharger heat.

58. Remove (1) 10mm bolt as shown in FIGURE 59. Lift bracket and tuck A/C line behind bracket. Tighten bracket bolt.

FIGURE 59



59. Install (2) M8 x 30mm studs into the wastegate flange on P/N 21185 (Exh. Tube Ass'y, Downpipe 1). Install this tube into position shown in FIGURE 61, loosely securing it to the "Downpipe 2" tube with v-band clamp P/N 30232. While in the car, connect P/N 21200 (Exh. Tube Ass'y, W'gate Disch.) to it. Attach & tighten the 2 parts together at the wastegate flange with (1) wastegate gasket, and (2) M8 lockwashers & nuts (P/Ns 20142, 30593, 30653). **NOTE:** It is not possible to bolt these 2 parts together beforehand, it must be done on the car. The W'gate tube has the same flange on both ends, so the correct orientation will have the end with the bellows facing the ground. This tube is pointed out in FIGURE 66.

FIGURE 60

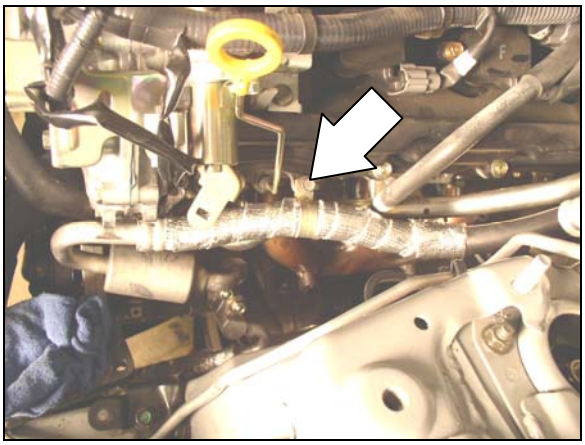


FIGURE 61

60. Install (3) M10 x 42mm studs and (1) turbine inlet gasket (P/Ns 30806, 30263) onto the turbine inlet flange as circled in FIGURE 66.

61. Place the turbocharger on a nearby open table, and install the following parts. Don't forget to use NPT thread sealant on all NPT fittings, and remove all protective covers and tags from the turbocharger.
    - (1) Oil drain gasket, and (1) Oil drain flange
    - (1) 1/2" x 5/8" hose barb 45-degree fitting (Orient the fitting as shown in FIGURE 67)
    - (2) M8 x 20mm hex bolts, lockwashers & nuts

- (1) 1/8” NPT x 5/32” 90-degree hose fitting (installed into the port on the compressor housing discharge, facing the same direction as the compressor discharge)

62. Install and orientate the nitrile hose connector to the inlet of the compressor housing and tighten using the 3.0” T-bolt (P/N 30275-300) that is supplied as shown in FIGURE 62-64

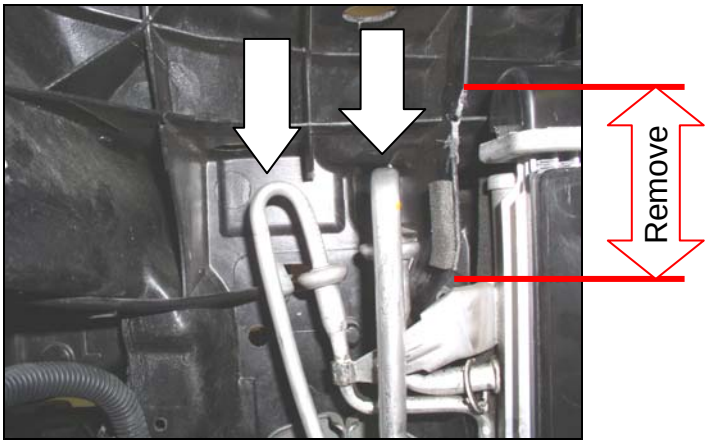
FIGURE 62

FIGURE 63

FIGURE 64

63. Notch plastic radiator core support on the upper core support area as shown in FIGURE 65.

FIGURE 65



64. Bend aluminum A/C line slightly to make room for the turbocharger as necessary.

65. Cut a length of 5/8" I.D. rubber hose (P/N 30827) 20" to 22". Attach & tighten this hose to the oil drain fitting from the previous step, using (2) 5/8" hose clamps (P/N 30817), one clamp on each end of the hose.

FIGURE 66

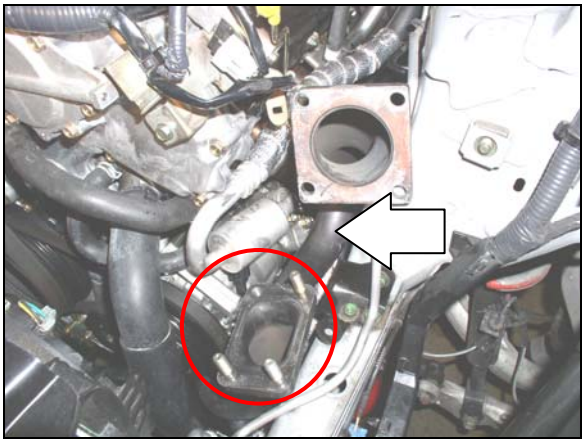
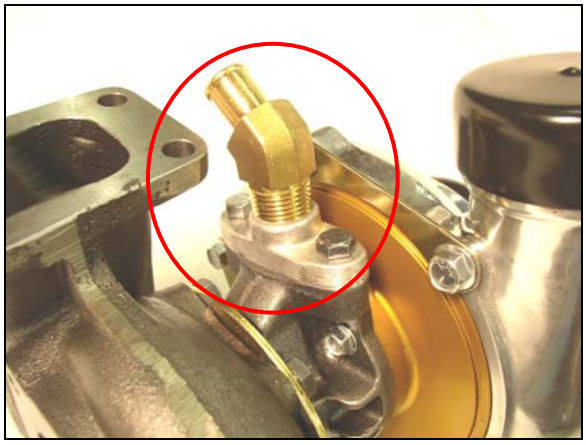


FIGURE 67



66. Bend the aluminum A/C tubing (pointed out in FIGURE 55) approx. 90 degrees downward over the frame rail as shown in the picture, just enough to provide adequate clearance for the turbocharger oil drain fitting. Temporarily install the turbocharger to check clearance, and bend more as needed.

    Note: It is important that you make sure the aluminum A/C line is not rubbing on anything.

67. Apply a bead of high temp. RTV sealant to the rectangular downpipe flange face, pointed out in FIGURE 68.

FIGURE 68

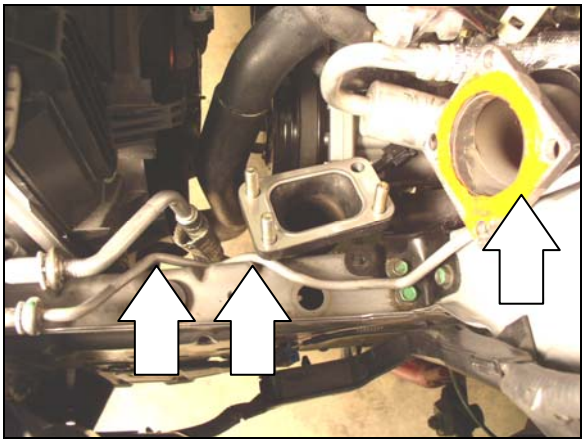
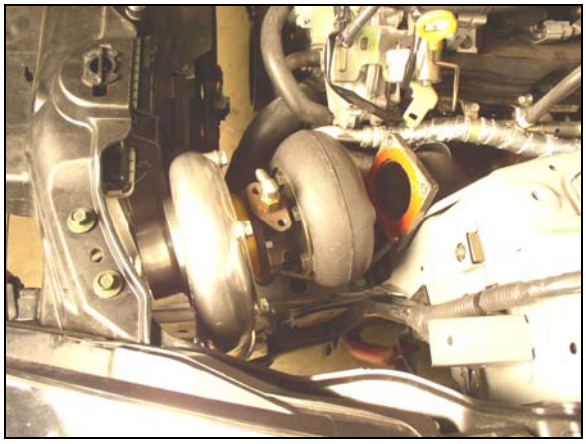


FIGURE 69



68. Attach & tighten the turbocharger to the turbine inlet flange, using (3) M10 flatwashers, lockwashers & nuts, and (1) M10 x 50mm socket head screw & flatwasher thru the 4th hole. This 4th fastener (pointed out in FIGURE 70) will go thru the turbine housing, turbine inlet flange & previously installed "turbo support bracket". Tighten it using (1) M10 lockwasher & nut on the underside of the support bracket, and also tighten the factory (A/C compressor) hex bolt holding the "turbo support bracket". Temporarily route the 5/8" oil drain hose down towards the fitting attached to the engine block.

69. Attach & tighten the "Downpipe 1" (pointed out in FIGURE 71) tube to the turbocharger turbine housing, using (4) M10-1.50 x 20mm hex bolts & lockwashers. Tighten the v-band clamp between the "Downpipe 1" and "Downpipe 2" tubes.

FIGURE 70

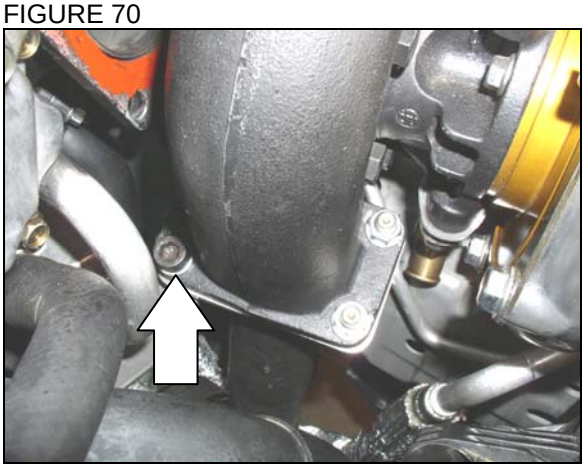
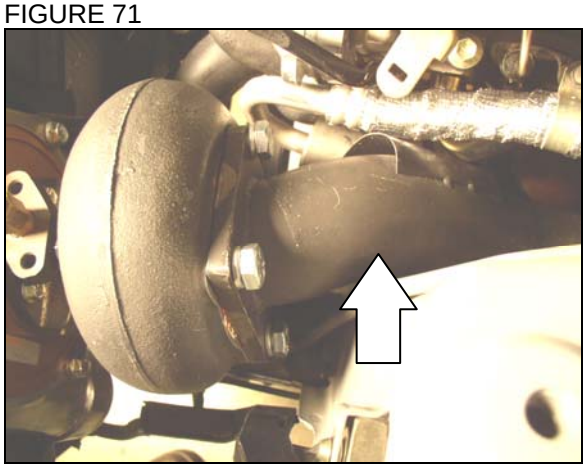


FIGURE 71



70. Install the 1/8" NPT x –3 90 degree oil fitting (P/N 30551) to the filter fitting atop the turbo center housing, using NPT thread sealant. Install the braided oil supply hose (P/N 10721) to that fitting, and temporarily route the hose down towards the bottom front of the engine.

71. Lift the front half of the car, and take all necessary safety precautions to secure the vehicle.

72. Install the Evolution wastegate (P/N 10781) to P/N 21184 (Exh. Tube Ass'y, Turb. Housing Inlet) tube, using (2) M8 x 30mm studs, flatwashers, lockwashers & nuts. Connect the wastegate discharge flange to P/N 21200 (Exh. Tube Ass'y, W'gate Disch.) tube using (1) wastegate gasket and (2) 5/16-18 x 1.0" hex bolts, lockwashers & nuts.

FIGURE 72

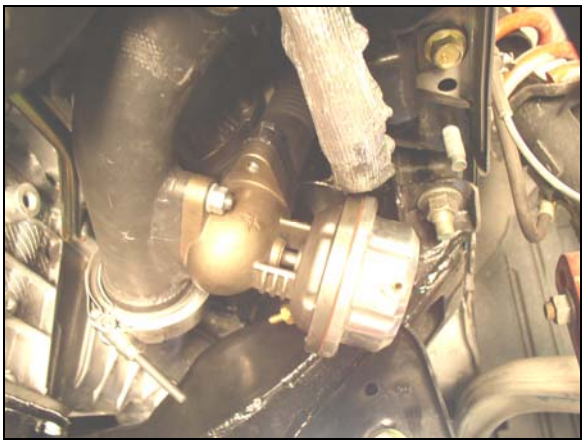
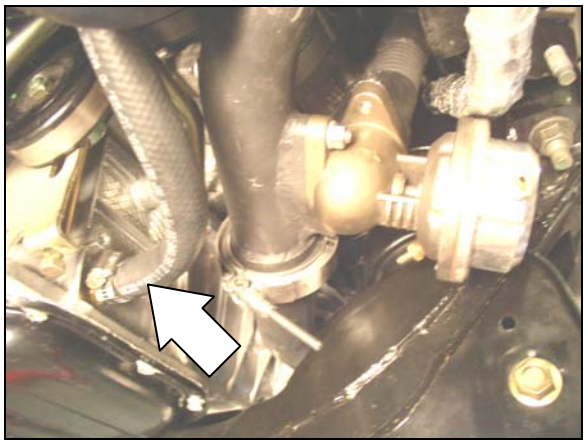


FIGURE 73



73. Install the third Downpipe (P/N 21201 or 21204, depending on which turbocharger system you purchased) using V-band clamp P/N 30232 to connect to the second downpipe, and (2) M10 x 40mm hex bolts, flatwashers, lockwashers & nuts to connect to the 2-bolt flange.

74. Install P/N 21205 (Support Bracket, Downpipe 3), using the 2 factory transmission bolts pointed out in FIGURE 74 on one end, and (2) M8 x 25mm hex bolts, lockwashers & nuts to connect to the bracket on the downpipe on the other end. Use M8 flatwashers on both sides of the bracket, total of (4).

75. Install (2) O2 sensor plugs (P/N 30862) into the welded bosses near the rear of the downpipe, pointed out in FIGURE 75. These bosses are for optional O2 sensors.

FIGURE 74

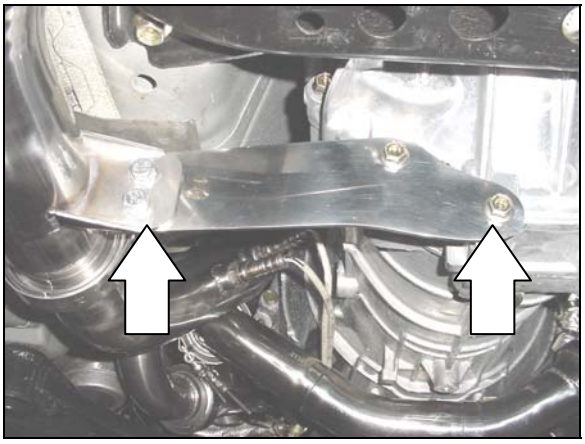


FIGURE 75

NOTE: Now that all exhaust tubes are loosely installed, go thru and tighten all the hardware & clamps.

76. Install the bottom half of the 5/8" oil drain hose to the oil drain fitting in the block, and secure with the attached hose clamp (pointed out in FIGURE 73). Cut the length of the hose to suit, so that no part of the hose is lower than the fitting in the block. Route the hose (downward from the turbocharger) away from hot exhaust pipes, and secure with zip ties. If any heat shield wrap is left over, use as needed.

77. Install the bottom half of the braided oil supply hose to the engine (pictures of bottom front of engine), per the following steps: (Be sure to use NPT thread sealant on all NPT connections)

A. Remove the electrical connector and the oil pressure sensor from the engine block (circled in FIGURE 76)
B. Using the supplied 1/8" NPT tap (P/N 30808), carefully re-tap the vacated hole in the engine block
C. Install the 1/8" NPT "Tee" fitting (P/N 30562) into the re-tapped hole (pointed out in FIGURE 77)
D. Re-install the pressure sensor into the opposite end of the "Tee" fitting
E. Install the 1/8" NPT x –3 straight oil fitting (P/N 30544) into the third leg of the "Tee" fitting
F. Install the braided oil supply line into the oil fitting from the previous step (SEE FIGURE 77).

FIGURE 76

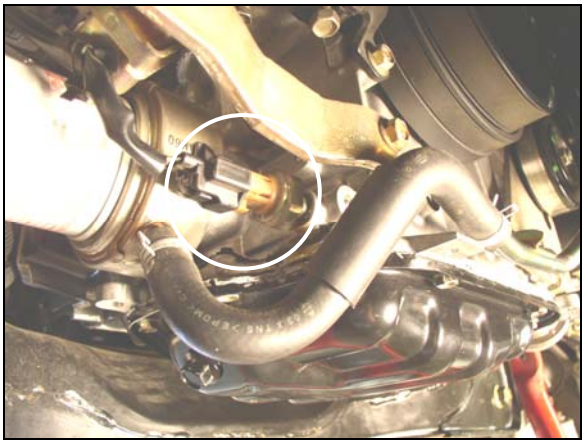
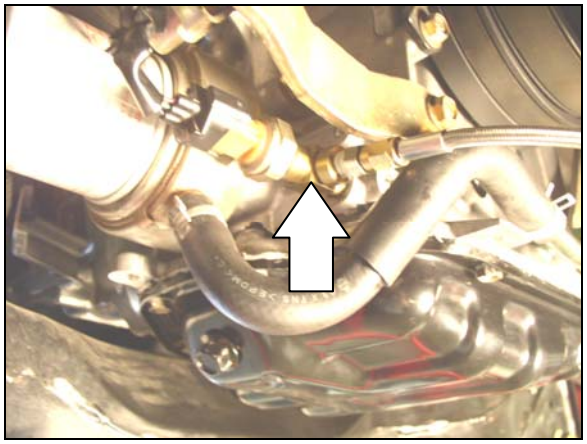


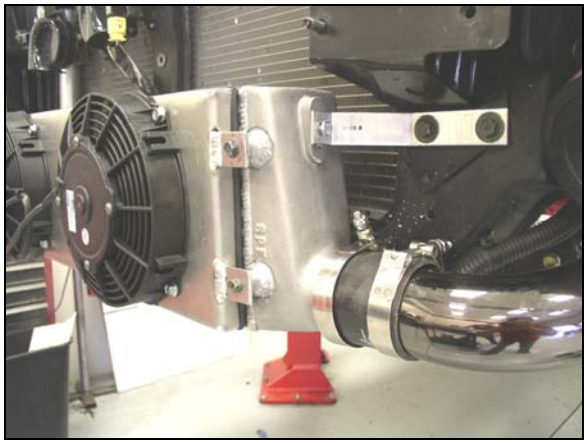
FIGURE 77



78. Install the mounting brackets (P/N 21203) to the intercooler end tanks, using (2) 1/4-20 x 1/2" hex bolts & lockwashers. Install the intercooler (P/N 5-312) assembly to the car using the factory bolts, as shown in FIGURE 78 & 79.

FIGURE 78

FIGURE 79



79. In the driver's side fender well, pull the factory wiring harness pointed out in FIGURE 80 away from the sheetmetal, to provide clearance for the intercooler tubing to fit under it. Install P/N 21175 (Tube Ass'y, Turbo to I/C) from the turbocharger compressor discharge to the driver's side intercooler inlet, using (1) 2-1/2" hump hose (P/N 30380-4) and (1) 2-1/2" coupling hose (P/N 30172-4) and (4) T-bolt clamps (P/N 30275-250), as seen in FIGURE 80 & 81. Use the coupling hose at the intercooler connection.

80. Install P/N 21177 (Tube Ass'y, I/C to MAFS 2) by removing the 2 factory hex bolts pointed out in FIGURE 82 & 83, and fastening the intercooler tube to the engine using these bolts. It may be convenient to install the

45-degree hose coupling (P/N 30444-4) and (2) T-bolt clamps (P/N 30275-250) to the upper end of the tube before installing it on the car.

FIGURE 80

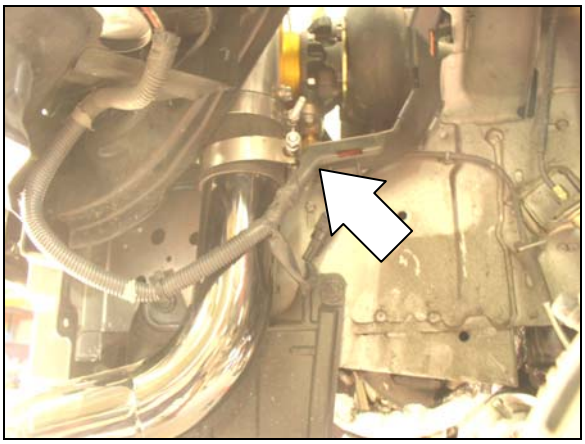


FIGURE 81

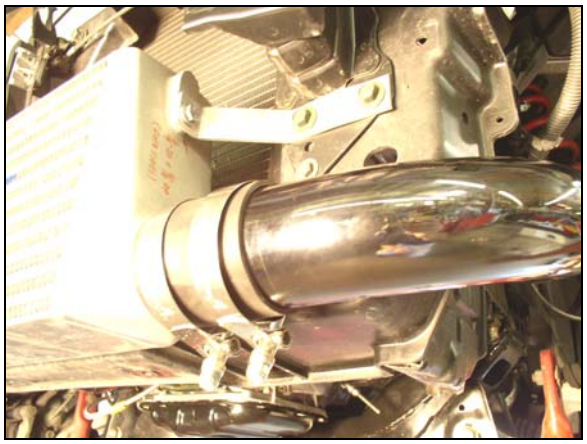


FIGURE 82

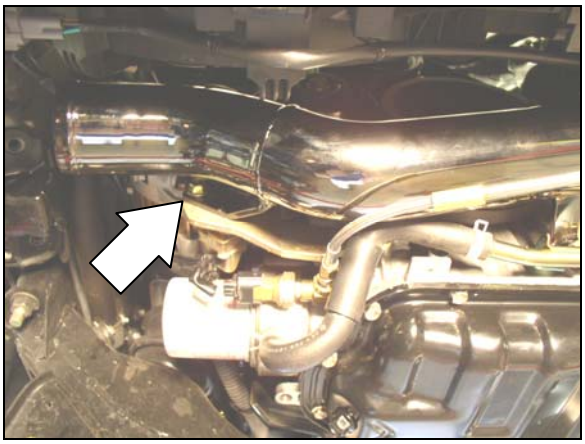
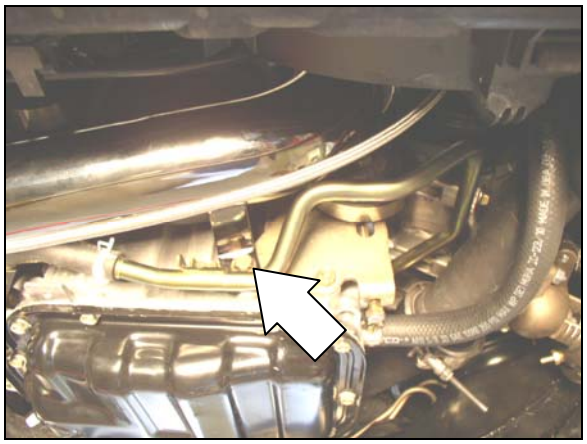


FIGURE 83



81. Install P/N 21176 (Tube Ass'y, I/C to MAFS 1) from the passenger side intercooler outlet to the tube from the previous step, using (1) 2-1/2" hump hose (P/N 30380-4) and (1) 2-1/2" coupling hose (P/N 30172-4) and (4) T-bolt clamps (P/N 30275-250), as seen in FIGURE 84. Use the coupling hose at the intercooler connection.

FIGURE 84

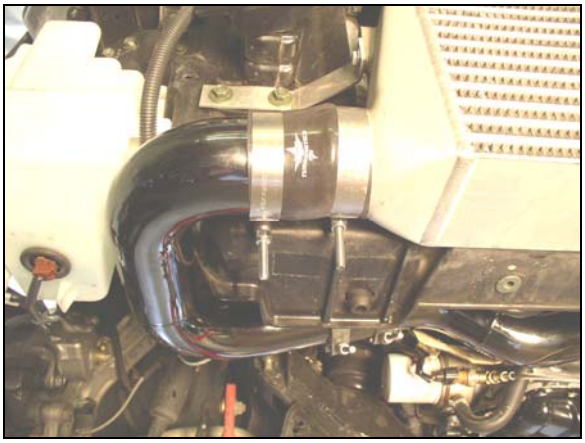


FIGURE 85

82. Modify P/N 30223 (turbo heat shield) as shown in FIGURE 85, using sheet metal cutters or heavy-duty scissors. Install the shield over the turbocharger turbine housing, and secure with steel wire.

83. Install P/N 30815 (K&N air filter) to the P/N 21180 (Tube Ass'y, Filter to Turbo) tube, and then install that sub-assembly to the turbocharger compressor inlet, using (1) 3.0" hose coupling (P/N 30162-4) and (2) 3.0" T-bolt clamps (P/N 30275-300). FIGURE 86.

84. Carefully route the 5/8" I.D. rubber hose (added in step# 31) along the engine bay inner fender, through the same hole that the first intercooler tube routes through, and connect to the 5/8" hose connection on the "filter to turbo" tube, re-using the factory hose clamps (pointed out in FIGURE 87). The hose can also be seen pointed out in FIGURE 86.

FIGURE 86

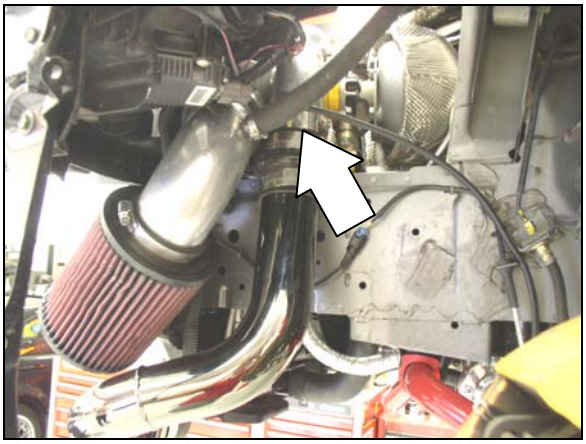


FIGURE 87

85. Install P/N 21179 (Tube Ass'y, MAFS to T/B) tube to the factory throttle body, using (1) 3.0" hose coupling (P/N 30162-4) and (2) T-bolt clamps (P/N 30275-300), as shown in FIGURE 90.

86. Remove the o-ring on the air flow meter flange and apply a small bead of silicone (around 0.100” thick) in the groove. Make sure you do not over apply silicone. Apply only enough to seal the flange between the mass air sensor flange to the boost tube flange (SEE FIGURE 88 & 89).

FIGURE 88

FIGURE 89

87. Pre-assemble P/N 21178 (Tube Ass’y, I/C to MAFS 3) tube with the factory mass air flow sensor (MAFS) housing, using (4) 1/4-20 x 3/4 hex bolts, flatwashers, lockwashers & nuts. Install a 3.0” hose coupling (P/N 30162-4) and (2) T-bolt clamps (P/N 30275-300) to the opposite end of the MAFS housing (SEE FIGURE 91).

FIGURE 90

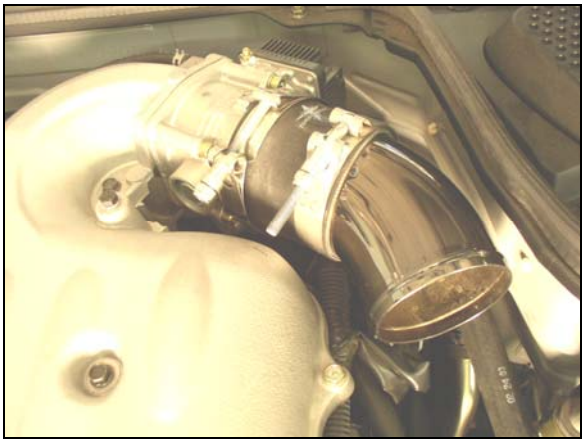
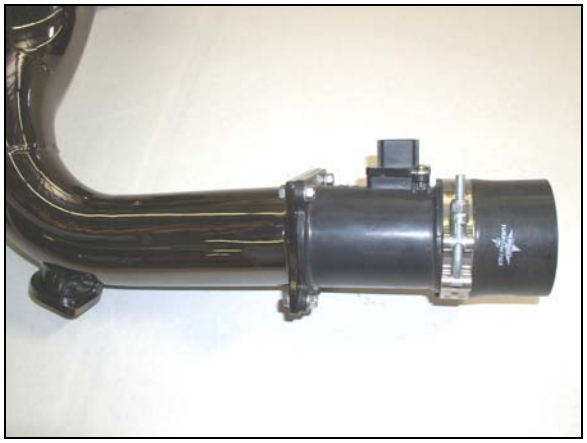


FIGURE 91



88. Loosen the factory bolt from the front side of engine, pointed out in FIGURE 92, and install the previous tube assembly using this bolt, and connecting to the 45-degree hose coupling from step# 76, and the tube in FIGURE 92. Reconnect the electrical connector to the MAFS housing (it may be necessary to cut a factory zip tie, to provide enough slack in the wire harness to reach the new MAFS housing location). Installed assembly can be seen in FIGURE 93.

FIGURE 92

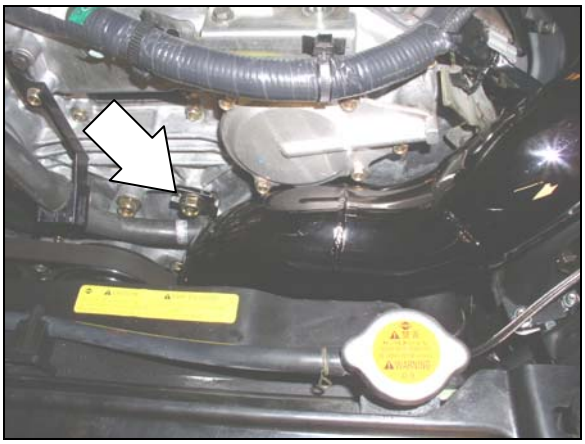
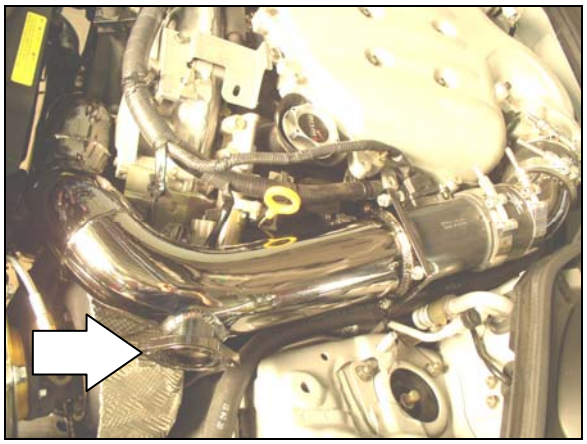


FIGURE 93



89. Install the polished discharge horn (P/N 20732P) into the discharge of the Raptor blow-off valve (P/N 10843) by simply pressing it into place. Mount the valve assembly to the swivel mount on the previous tube, using (1) O-ring (P/N 30468), and (2) 1/4-20 x 5/8" serrated head hex bolts. Orient the valve with the horn facing towards the front of the car and tighten the bolts.

FIGURE 94

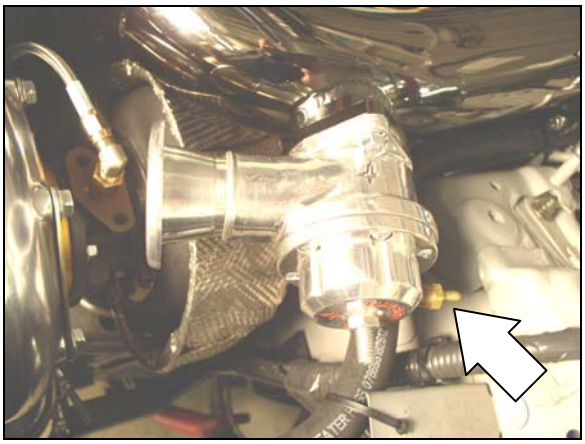
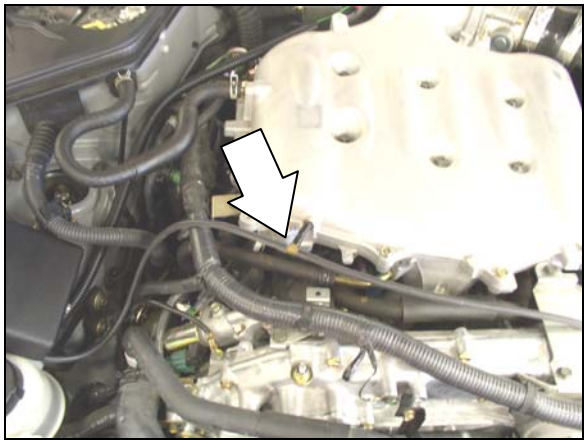


FIGURE 95



90. Install (1) 1/8" NPT x 5/32" hose fitting into the bottom port of the wastegate, and (1) 1/8" NPT x 5/32" hose fitting into the top port of the blow-off valve, pointed out in FIGURE 94.

91. Cut approx. 2.5 feet of 5/32" vacuum hose (P/N 30542-BK), and route the hose from the upper intake plenum (port shown in FIGURE 79) to the blow-off valve fitting. Cut approx. 2.5 feet of the same hose, and route it from the fitting on the wastegate to the fitting on the compressor housing (installed in step# 60). Loosely zip tie the hose as desired. **NOTE:** The operation of these turbocharger control devices rely on these hoses for pneumatic signals, so do NOT pinch or crimp the hose in any way.

92. Re-install aluminum bumper reinforcement bar and modify foam bumper insert as shown in FIGURE 96-98.

FIGURE 96

FIGURE 97

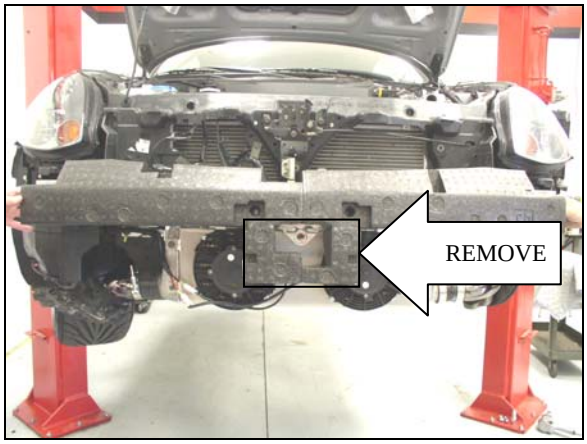
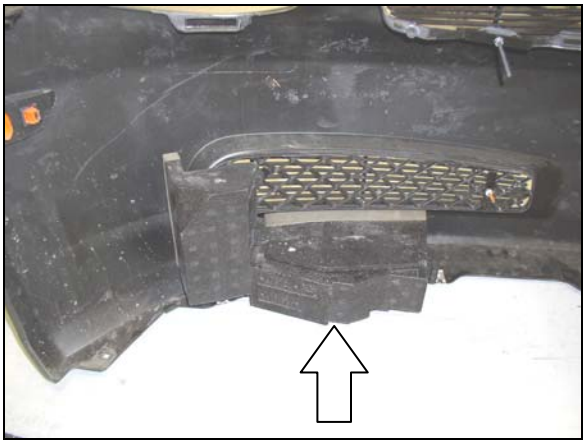


FIGURE 98

93. Remove both foam inserts (one on each side) from the front bumper as shown in FIGURE 99. Re-install front bumper.

FIGURE 99



94. Re-install all factory hardware that can be re-installed: ECU, sway bar, intake cover, bodywork, etc

Installing the IFC

1. Using the supplied double side taped, secure the IFC to the steel bumper support bracket. SEE FIGURE 100

FIGURE 100

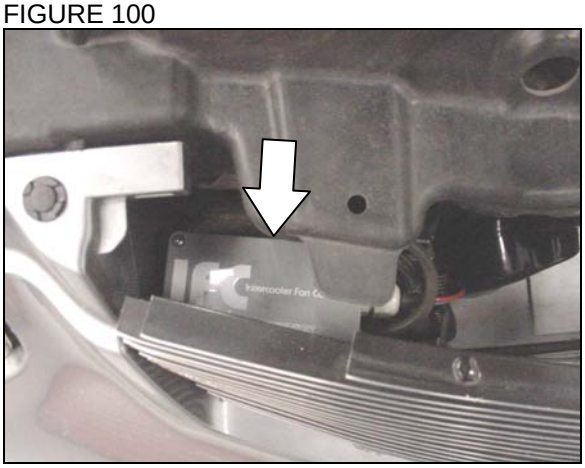
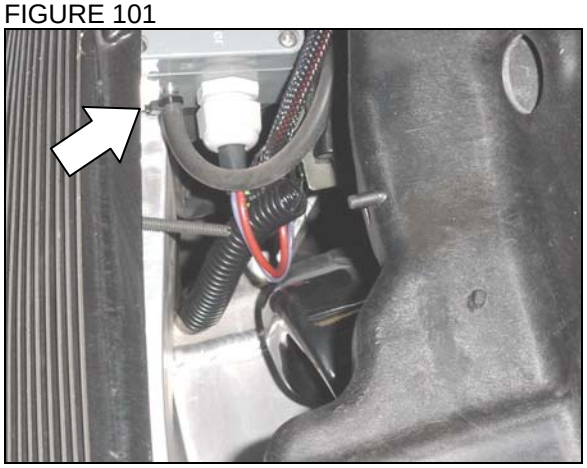


FIGURE 101

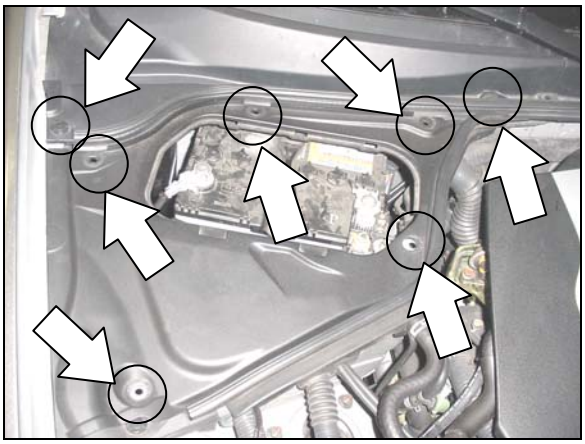


2. Route the leads from the IFC with the fan plugs to the intercooler and connect them to the intercooler.

3. Using the supplied T-fitting, install it between the vacuum signal from the manifold to the blow off valve. Connect one end of the fitting to the signal to the blow off valve and connect the other to the IFC. Secure silicone hose to the fitting on the IFC with a zip tie. SEE FIGURE 101

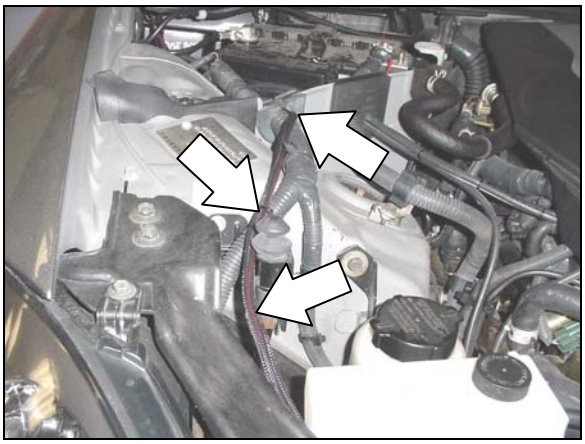
4. Remove the five plastic clip that secure the battery cover and remove cover. Remove the two plastic clips that secure the plastic cowl trim and remove trim. SEE FIGURE 102

FIGURE 102



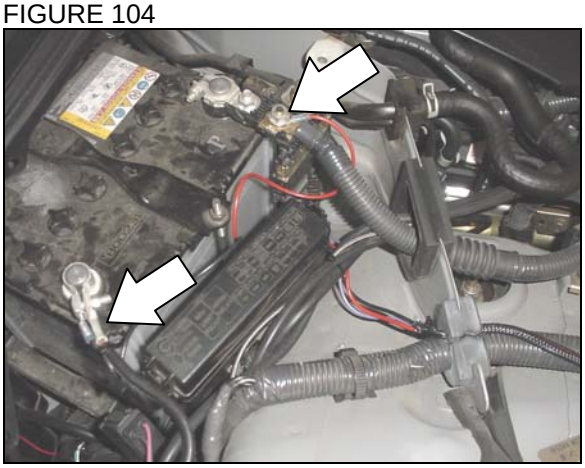
5. Route the wires from the IFC to the battery compartment as shown in FIGURE 103.

FIGURE 103



6. Connect the red and black wires from the IFC to the terminals of the battery. SEE FIGURE 104

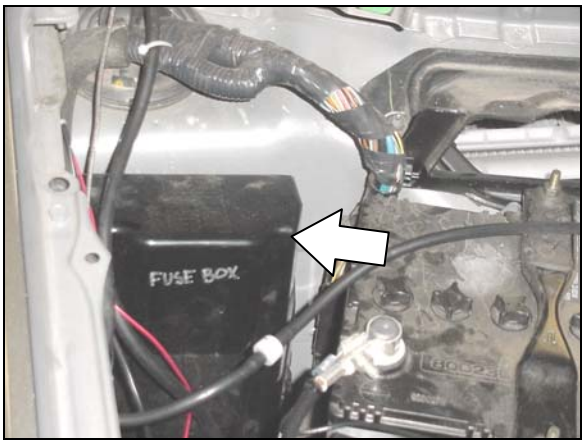
FIGURE 104



Red Wire – Positive (+)
Black Wire – Negative (-)

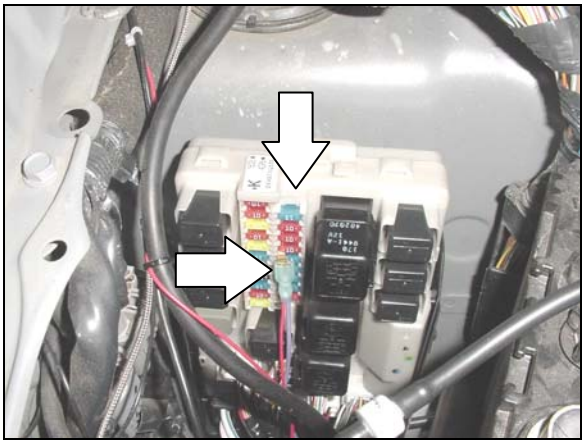
7. Lift cover of the fuse box that is to the left of the battery by pulling upwards. SEE FIGURE 105

FIGURE 105



8. Locate the windshield washer fuse, which is the forth fuse down on the right side. Using the supplied fuse tap, remove the fuse and slide one of the contacts onto the tap and re-insert the fuse into place. You may refer to the top of the fuse box lid to locate the fuse.
9. Route the purple wire from the IFC following the other factory wires to the fuse tap so you can re-install the cover. SEE FIGURE 106

FIGURE 106



FINAL CHECKLIST:

- Review these instructions to make sure that all fasteners, clamps & electrical connections have been installed & torqued correctly.
- Check that all hose routings are free of any kinks or near any hot or abrasive surfaces, that may cause wear over time. Adjust or reroute as necessary to provide adequate slack for engine movement.
- Refill all fluids (oil & power steering) to factory recommended levels.
- The use of synthetic oil (with the factory recommended oil weight) is strongly recommended, as it will prolong the life of the turbocharger. Regardless of factory recommended intervals, the addition of a turbocharger requires that the oil be changed every 3000 miles.
- The use of premium octane unleaded fuel is required for proper engine performance and to reduce the possibility of internal engine damage from detonation.
- Cycle the ignition to the “ON” position several times to pressurize the fuel system & check for any leaks.
- Start the vehicle and check for any oil, power steering or air pressure leaks.
- It is recommended that you do not drive your vehicle aggressively if the fuel level is below ¼ tank.
- **NOTE:** It is normal for the vehicle to emit some amount of white smoke & a strange odor for an hour or two of operation, as the oils within the exhaust pipes burn off.

QUICK TROUBLE SHOOTING GUIDE

Car Won't Start

1. Check ECU harness to make sure its seated properly
2. Check EVAP solenoid and ensure harness is connected (located at the back of the intake plenum)
3. Check EVAP solenoid fuse (fuse is located in rear fuse panel behind battery)
4. Check fuel pump fuse (fuse is located in rear fuse panel behind battery)
5. Check for codes and troubleshoot per code

Car goes into limp mode during acceleration

1. Verify MAF is connected and wires are intact
2. Check boost level. If over 8-9 PSI verify wastegate boost signal line is in correct port. (lower port furthest from logo) If so verify wastegate relocation pipe is installed
3. Check for boost leak at or after MAF
4. Verify throttle body is operating properly

ECU throwing codes 1273, 1284, or any O2 related codes

1. Verify O2 sensor connectors are installed properly.
2. Verify O2 sensors are installed on proper corresponding connector
3. Verify O2 sensors are installed properly
4. Verify correct downpipe version is installed (has O2 extenders welded on)
5. Swap O2 sensor position on downpipe

Car not building full boost

1. Check for boost leaks
2. Verify boost signal line is in proper position on blow off valve (upper most port closest to logo)
3. Verify wastegate boost signal line is installed properly (lower port furthest from logo)
4. Check for exhaust leaks

Car running excessively rich

1. Verify stock fuel pressure regulator has been modified per instructions
2. Verify fuel pressure is correct (52-55 PSI)
3. Verify BOV signal line is installed properly (uppermost port closest to logo)
4. Check for boost leaks

Car misfires

1. Verify injector harness is installed correctly
2. Verify coil pack connectors are installed correctly
3. Verify spark plugs are not fouled
4. Verify MAF sensor harness is installed correctly and wires are intact
5. Verify MAF is installed properly and is functioning
6. Verify there are no vacuum leaks post MAF

Car detonating under boost

1. Check boost pressure
2. Check fuel pressure
3. Verify injectors are installed properly
4. Verify air fuel ratio on dyno

Air conditioning not functioning

1. Verify replacement AC line properly installed
2. Verify AC system was properly recharged
3. Verify no AC leaks

Clutch pedal stays down after a track or full boost run

1. Flush in high temp brake fluid in hydraulic clutch system
2. Replace stock clutch line with stainless steel braided line and heat wrap line

Car smoking when coming off boost

1. Oil drain line not installed properly
2. Oil drain not above oil level
3. Turbo seal failed
4. Verify oil pressure (15-20 PSI at idle 35-80 on load)

“NO FAULT / NO HASSLE” WARRANTY PROGRAM:

TURBONETICS will repair or replace, at our expense, any new TURBONETICS / Spearco products that fail, including products used in racing or competition applications, for a period of one year from the original date of purchase. All turbocharger and cartridge assemblies have a factory installed inline oil filtration device. This filter device must remain in place if any warranty is to be considered under the No-Fault / No-Hassle program. Electrical components that fail due to misuse are not covered under the No-Fault / No-Hassle Warranty Program.

Warranty is limited to TURBONETICS products and does not include progressive or subsequential damage and does not cover removal or installation labor or associated parts. No warranty is made for any other claims for special, indirect or consequential damages including but not limited to component removal or installation equipment downtime, prospective profits or other economic loss.

Warranty will not be granted for recurring damage, malfunction, or failure due to improper installation, misuse, unauthorized repair or alterations, or externally induced physical damage.

Warranty is non-transferable and must be processed via the original purchaser from TURBONETICS.

Remanufactured units, performance upgraded units, and O.E.M. replacement units are covered by a 90-day warranty or the O.E. warranty period.

TURBONETICS highly recommends that the installation of mechanical or electrical parts be performed by trained professionals. Improperly installed products may lead to unsafe and unreliable conditions.

RETURN POLICY:

Only unused and complete merchandise may be accepted for return subject to inspection and acceptance by TURBONETICS. No goods will be accepted without prior return authorization from TURBONETICS. Call for approval and RGA (Returned Goods Authorization) tracking number. No returns will be accepted without an RGA tracking number. No returns will be accepted after ninety (90) days from the original shipping date from TURBONETICS unless approved. All approved returns are subject to a 15% restocking charge – NO EXCEPTIONS. The original invoice must accompany the return. Accepted warehouse / distributor and open account returns will be issued credit only.

RETURNED GOODS AUTHORIZATION TRACKING NUMBER:

TURBONETICS will only accept product returns, repair orders / upgrades, and warranty requests that have been approved and are returned with a corresponding RGA (Returned Goods Authorization) tracking number.

Contact TURBONETICS for approval and the RGA number. Write the RGA number clearly on the outside of the package and include it inside the package. This is very important in allowing us to properly identify and process your request. Failure to comply with this requirement will result in the delay of processing or the product being returned to you.